

10/530187
JC06 Rec'd/PCT/PTO 04 APR 2005

SEQUENCE LISTING

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TAKAHASHI, Masayuki

<120> Molecular Subclassification of Kidney Tumors and the Discovery of
New Diagnostic Markers

<130> 28927-0014

<140> Not yet assigned

<141> 2005-04-04

<150> PCT/US2003/031476

<151> 2003-10-06

<150> US 60/415,775

<151> 2002-10-04

<160> 296

<170> PatentIn version 3.2

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atgaagtaca ttagaaggaa tccctgagta tattaagtac tctattagta tcttctctaa 480

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tttgtaaggt ttaaacaacg ggcagggagn caaacgagtc aaatggtttc ctctgctgaa 480

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529

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<223> n is a, c, g, or t

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<223> n is a, c, g, or t

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<223> n is a, c, g, or t

<220>
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<222> (375)..(375)
<223> n is a, c, g, or t

<400> 21
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gtataaaaaa taaatatTTTT aaatatgaca ttgantaaat aaaaataatc tgtcagtatg	120
aaacatcccc acagggtaca ttcatcaaag aggattttgt cacccaaggc catgtgcttt	180
tcagtggaag ggaaggaggg aaacctctaa ggccgcacgg tgggcccacg gagctagcac	240
gtgggcgggg actganggct ggatgcccg nttgagggtg gggaactaga gatgactnta	300
agggcaggga acatctgtac cntctgcagg gaaattgcta ccctccccgg gtgccngagg	360
ttccacccca caaantttgt ctac	384

<210> 22
 <211> 367
 <212> DNA
 <213> homo sapiens

<400> 22	
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tatctcagtg tctcaattca cactaaaata ttgaatgaga aatacaccac gttggctgat	180
tgcttgacat gtctgattta gggagacttc tacaaccact cctctctttt ttctcccagt	240
aaatactttt gactttgaca cctaccatat tggaaatgac aggtgcccga gggcaagtgc	300
atcaaagcag ttaggattcg aatgcttgct aaggattatt tttttaatgg agcagttcta	360
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 <212> DNA
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 <223> n is a, c, g, or t

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<223> n is a, c, g, or t

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<223> n is a, c, g, or t

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<223> n is a, c, g, or t

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<223> n is a, c, g, or t

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<222> (310)..(310)

<223> n is a, c, g, or t

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<222> (315)..(315)

<223> n is a, c, g, or t

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<222> (346)..(346)

<223> n is a, c, g, or t

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<222> (420)..(420)

<223> n is a, c, g, or t

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gtnggggttag agttgggaac ctatgaacat tctntagggg ccactntctt ctccacggtg 180

ctcccttcat gcgtgacctg gcanctntag cttctgtggg acttccactg ctcgggcgtc 240

aggctcaggt agctgctggc cgcgtacttn ttgttgctct gtttggaggg tttggtggtc 300

tccactcccn ccttnacggg gctgccatct gccttccagg gcactntcac agctcccgga 360

tagaagtcac tgatcagaca cactagtgtg gccttggttg cttggagctc ctgagaggan 420

ggcgggaaca gagttacagt gggga 445

<210> 24

<211> 226

<212> DNA
<213> homo sapiens

<400> 24
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ttatcacaca caaaaaaagt tgtgtgatgg gatgaggga ggattgtacg tattataacc 120
atgttaatta cagtacatta aaatggtggt ttacattaca aataagcctg taagtttaaa 180
tataactagt ttataaccca atgtacagac gttctttata caatac 226

<210> 25
<211> 498
<212> DNA
<213> homo sapiens

<400> 25
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cccaaaaagt taaaaaaata aagaaaagct aataggtagg cagaatgtct tgagaccctt 120
ctgttttcaa ggagagctct atgcagcgtg tgtccacacc gaggtctgca gcagggcaga 180
gtctccctga gcctgacttt gccagacctt cttgggtttg gcctccggga gagcagccca 240
gtctctgggc gtgactcctt tcctcagtca tggccacagt tgtatcatat agcatctcta 300
acatttcatt taggattatc tagtatagat cttactatat ttggggctat gttgtatcaa 360
tgtaacaag aacatatctt ctctgcataa atgtgtgaat tattaagaaa agatgagaaa 420
gactccaagt tcaacaaaca tgggtgaatc tcaatgtgct cccatggccc gggaggggat 480
cccgaaagc cattcctc 498

<210> 26
<211> 551
<212> DNA
<213> homo sapiens

<400> 26
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tccttacctt agaagaaggg aggtggtaga tgaaatgaac tgtatgaaga gccactagcc 180
tggtccacac acagaagaag gactggcccg tcttcttgaa gccatgctc tggtagaggg 240
ccatagcaga gagctggatg gtgccggtgt ccaggataac ttactgtag ccctggtccc 300
gggcaactg ggaggacagt cctgaccagg gcttttgcta tcccctgacg acggtgctca 360
ctgtccacag agagatgaaa cagctgcaac cgcttctccc tcaagggtggg atcatcaaca 420

ggcagagctc ctaccatgcc caccaccttc tcttcagact cagcacccag aagcaggagc	480
cacgctcact caggtaggat tggtaatgtc agacatgtct gtgcacaatg tcatgtccaa	540
atactccgtc c	551

<210> 27
 <211> 428
 <212> DNA
 <213> homo sapiens

<220>
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 <223> n is a, c, g, or t

<220>
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 <222> (409)..(409)
 <223> n is a, c, g, or t

<400> 27	
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aaaacaattc ttacacacct tttttttcct agataaattt gacctggttt agtctttagt	120
gcaatgaatg gaaaaaacat ccctaaatac ttctgcatca gtagagttgg ccattactga	180
gcctggagac ccatgctaac tttccagnca aaggtagtgt gttactgtac aagtgcaact	240
aggttaggct aggcaaggaa ttaaaggacc aggggcaggc agccatggga gagggcacag	300
tgtcctggga cttgtaggca atagtataac tgggctttct ttctctggct tcagaacctt	360
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gggtgaag	428

<210> 28
 <211> 377
 <212> DNA
 <213> homo sapiens

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 <222> (278)..(278)
 <223> n is a, c, g, or t

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 <223> n is a, c, g, or t

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<223> n is a, c, g, or t

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gcaaagcaat tctcccactc aacatcattt gttgaatttt agtttttggc aaatctcgtt 120
tctgtttggt cttgagggaa acattatagc tcacattttt tggttatttt tatgaattca 180
gaaaataagt gttgaattta tagaatgggg acattcaagc tggaccaga acgatcatta 240
actcctaggg caggtaactg gtaaattttc acatgggnca catctctcat aggctccctg 300
gtttcacaat caaaggaaat ctaaaatcac caactgggtt acatatccac tataaccggt 360
atagggttat tccagcn 377

<210> 29
<211> 381
<212> DNA
<213> homo sapiens

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<222> (34)..(37)
<223> n is a, c, g, or t

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<223> n is a, c, g, or t

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<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (245)..(245)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (348)..(348)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (363)..(363)
<223> n is a, c, g, or t

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tccggcagag gcatgaggca gagaaggccg cgggcttcat ctccgtgctg aagctgttcc	120
ggatgcgctc gctgcgtgng cantgctgtc catcatcgtc ctcatgggcg gccagcagct	180
gtcgggcgtc aacgctatct actactacgc ggaccagatc tacctgagcg ccggcgtgcc	240
gaggnaggca cgtgcagtac gtgacggccg gcaccggggc ctgaacgtgg tcatgacctt	300
ctgcgccgtg ttcgtgggtg gagctcctgg ggtcggaggc tgctgctntt gctggggttt	360
ttncatcttg cctcataagc c	381

<210> 30
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 <222> (217)..(217)
 <223> n is a, c, g, or t

<220>
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 <222> (249)..(249)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (262)..(262)
 <223> n is a, c, g, or t

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tatctgtatt tctttgtcgt tgtttaaaaa taaatatgta ctacggaata tctcgaaaaa	120
ctgcactaga gacaaagacg tgatgttaat atcttttccc cacaattatt acggataaac	180
agtagcacca ataaataaat gataacaaat nttaaantta aaaaaggaga gagatttagt	240
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<210> 31
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 <212> DNA
 <213> homo sapiens

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<223> n is a, c, g, or t

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<222> (515)..(515)
<223> n is a, c, g, or t

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<222> (523)..(523)
<223> n is a, c, g, or t

<400> 31
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acaataacag taagcgaatc atacaaatat tgagaaaaaa tgttcctatg aatacataca 120
tgtatattct taagagtagc gatcaggagt ttaacaacaa atgtaaagtg gttttctcta 180
aagaatgctt tctgacaggc ttttggttg gaaatggaca ggtaaatacac tgtcacataa 240
caggtaagct aagaataact tctgttacc c aagtcatttg aaccctgtgg actgtgaaag 300
ccctcttggg aatttacatt taattccatc attggtctgg ttgacttcca catttcacta 360
aatttgggac aaggtccaca aagtaactcc tcaactctca gtcttttcac actcaggctc 420
gtggggaagg aaaggcagtt gaggaccggg ttttgaacac ntgcacggag accattgtta 480
gggtttttct aacagtatcc ctctgtttct ggcanttcca agncataccc aaattgggt 539

<210> 32
<211> 354
<212> DNA
<213> homo sapiens

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<222> (157)..(157)
<223> n is a, c, g, or t

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<221> misc_feature
<222> (264)..(264)
<223> n is a, c, g, or t

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<222> (302)..(302)
<223> n is a, c, g, or t

<220>
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<222> (307)..(307)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (318)..(318)

<223> n is a, c, g, or t

<400> 32

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ggtgaaacaa tgtggtattht ataatgtgtc tgggtcagtg cctggcacat gggcaaattgc    120
ttaataaatg gtagttcccc tctgaccctg acagttncaa gggtttggag tgacttgctg      180
atgattctaa tgtcccagcc ccacacacaa gtcttcctgt atgggagggtc ttctcctagg     240
gtaaaagaaa gtaccacttg cttntccttt catttccttc tcaagctcca gtttgatgct      300
tnacttngtc tatctgtngg aatatttata gggttatcca ctttacttcc caca              354
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<210> 33

<211> 319

<212> DNA

<213> homo sapiens

<220>

<221> misc_feature

<222> (249)..(249)

<223> n is a, c, g, or t

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<221> misc_feature

<222> (294)..(294)

<223> n is a, c, g, or t

<400> 33

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agaagacccc cgcgtatttc acgtcgccca aagtgcctga gcgagtctac agcatgaacc     120
cgtccatccg gctgctgctc atcctgctgag acccgctcgga gcgcgtgcta tctgactaca    180
cccaagtgtt ctacaaccac atgcagaagc acaagcccta cccgtccatc gaggagttcc      240
tgggtgctng atggcaggct caatgtggac tacaaggccc tcaaccgcag cctnttacca      300
cgtgcaacat gcagaactg              319
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<210> 34

<211> 424

<212> DNA

<213> homo sapiens

<400> 34

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aggccacacg gctgcctgca cagcaccccc atgcttggtgta ggggggtggga gggatggcg	120
gggctggctg tccacaggcc gggcatgaca aggaggctca ctggagggtg cacacttttg	180
agtgggatgt cgggggacag cgttctctgg tagttgggcc acaagactcc acaaggatag	240
cacagtgact gattcccagc gctagaggcg aggcggttg ccatgtgtag gtgtgtatat	300
atatgagtat ttatagatat tttatagaac agggcaaggg cataccacag aagggggcac	360
aaggtttttc accaacggtc cacacctgga tggatcagc tcacccgcta ccacaggatt	420
aagt	424

<210> 35
 <211> 360
 <212> DNA
 <213> homo sapiens

<400> 35	
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cgctgggggtg tgggaaatth cagaggcccc tcctgggatg tcacccttca ggtcctcatg	120
agtcaatctt gagtttctcc ttcactttct gaaatggctc tggaaaacca ctcccgcatc	180
ttggcagaaa gttcactctg tttgatgagg ctgatgagtt cccgagcctt gtcctccagt	240
gtgtttccaa actccttcag cttatccaag gcactggaga cgtctggggg cccctgggct	300
ggggctgggc cttccaagac gatcgacaga accaccacca ggaccgggag cgacaggaag	360

<210> 36
 <211> 409
 <212> DNA
 <213> homo sapiens

<400> 36	
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gtaaaaaaaa aaaaaaaaaat tacaatcagg cctggtggtg gctcacgcct gtgatctcag	120
cactttggga ggctgagggt ggcggttgc ttgatctcag gagtttgaga ccagcctgag	180
caacacagcg agacctggtc tcaaaattat tatacaatca atgcaagtac aaagattcaa	240
tttttaaaaa tcaccagagt acaaagacgg ccacagcccc tgcccgggtt taacttacat	300
atatacagag tgggcggggc aggcattggc acagagggtg tattacaaaa tatacaaagt	360
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<210> 37

<211> 348
<212> DNA
<213> homo sapiens

<400> 37
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agagggaata cagagtcccg aaaaagggga gggcaggtgg gctggaacca gatgcagggc 120
caggcagaaa ctttctctcc tcaactgtca gcctgggtgg ggctggagct cagaaattgg 180
gagtgcacac ggacaccttc ccacagccat tgcggcacga tttcatctgg ccaggacact 240
ggctgtccac ctggcactgg tcccgacaga ggccgagctg gggaaagtta atgttcacct 300
gggggcagga accctcctta tcattgggca gagagcagaa ggtggcac 348

<210> 38
<211> 460
<212> DNA
<213> homo sapiens

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<222> (393)..(393)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (441)..(441)
<223> n is a, c, g, or t

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tggccaagtc catcgggggtg tccaacttca accgcaggca gctggagatg atcctcaaca 180
agccagggtc caagtacaag cctgtctgca accaggggtg gaatgtcatc cttacttcaa 240
ccagagaaaa ctgctgggat ttctgcaagt caaaagacat tgttctgggt tgcctatagg 300
tgctctgggg atcccaccga ggaaggaacc atgggggtgg accccgaact ccccggtgc 360
tcttgggggg gccccgtcct tttgtggcct tnggaaaaaa gcacaaggcg gaccccagcc 420
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<210> 39
<211> 392
<212> DNA
<213> homo sapiens

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<222> (165)..(165)
<223> n is a, c, g, or t

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<221> misc_feature
<222> (263)..(263)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (273)..(273)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (381)..(381)
<223> n is a, c, g, or t

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tgctcttcaa tatttttcca gtattaaatg aaaaagacc tctgcccag cccacatttc 120
ctttgttgaa tgagtagaga agactgagaa gtatcactca cccgngatgt ggtttgtccc 180
ttttccagcc agtgtgttg taataaaagt cacctttcag agctttggtc cctgtaatgc 240
ccgtctttcc tgtgtccagg aanaaccttt gcnactaggc agtcctctga aagatttgta 300
gaagggttaa gtggaaagg acttggaagc tcatagaatc catgcctctt tcttttagca 360
tcaaggaatt agaagtcccg ngagatgaag aa 392

<210> 40
<211> 388
<212> DNA
<213> homo sapiens

<220>
<221> misc_feature
<222> (171)..(171)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (313)..(313)
<223> n is a, c, g, or t

<220>
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<223> n is a, c, g, or t

<220>
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<222> (354)..(354)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (359)..(359)
<223> n is a, c, g, or t

<400> 40
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aagtttccaa aaatataaca aatgtttata aataccgtgt gcactgcagt naattggtgt 180
ccccagagaa ataaaatgca taacaaagca aatgttatgt tgtagtgtat gtatggcaca 240
tttataaatc attacatact ttagggcaca aaaatgctgc agtactaaaa gtgttggttca 300
agtttctcaat tcncggtaac nattttaaatt ttcattaatt cgggtttaat atcnatggnt 360
ctccaaaagg ctcccgtagc catatttag 388

<210> 41
<211> 354
<212> DNA
<213> homo sapiens

<400> 41
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agatccagaa cttgctacca gcctgaggag aaatcaaaca catggagaaa ggaaagctga 120
cagcccagag acccacgggg aaacaggccc cgagttactg gatacaggca accctaaaac 180
tgactgtccc tctggactct acgtagtgag ccaacacatt tcctcattat tttggatatg 240
tttttttcag ttgaaggcat tctgattcaa tacaggtgaa acttttcttt gcaaattaca 300
aagtgtgata actgttgcta aagtttggaa tgtgcttaga gggagatcat gaac 354

<210> 42
<211> 515
<212> DNA
<213> homo sapiens

<400> 42
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tgaagtcgct aaacaggacg gatttaagta gaggtgatat gtccagtcac cggcatagag 120
acgtcctctg cgtcaccatc cacacacagg gcttctggta gacatcaggc aaagctctcc 180
atgttaatat tcattctgaat atggataatt agggtaggcta gcaaaactat cactgttaaa 240

atagtggaga tttctgtcta ggccatctat ggctttcatg tcctctgcag tcaactggaa	300
ctcaaaaacc tgcacgttct gtctgatgcg ctgctcattg tagctcttgg ccaggaccac	360
aacccacgc tgcagctggt agcgcagggc aatcagggct ggggttcgct tgtgcttttt	420
tgccaaggca caaaggactg ggtctccaag agcaccgggg agtcgggtca ccatcgtttg	480
ttcgttgaga tccagagcat ataggacca gaaca	515

<210> 43
 <211> 369
 <212> DNA
 <213> homo sapiens

<400> 43	
tttttttttg accccaagca cagctttatt gacaccccag ccaacaccaa cactctttcc	60
aaccagcggg gaggggcccc tgggggcggg cctgaagggtg gattgagggc ctcggttttt	120
tgttgagtga tgacagctcc atgttccttc cagtggccct gcagcccctc tatccccag	180
ctttagccgc tactcccagt ggggcaggag gagcttccat tgccatctgg agaccctggc	240
agggacttgc ccatccgatc cacacaccag cagggacctc ggcgctgccc ctgggaggag	300
cggcactgct gttccggtag aagcctcgat ggtcacaatt gggcacgtag agtgtttgag	360
cccctcggt	369

<210> 44
 <211> 386
 <212> DNA
 <213> homo sapiens

<400> 44	
tttgtgtaaa tctagcattt attgagtgtc tgctttgtgc tcagcactgc tcaaactg	60
tgagcaaata caaaagattt aagagactgg gtaccactt cagaggggtga acatacagtt	120
ggaatttcca ttcactccac agttagagaa cagtagaaat gagtttctat caggcatgct	180
ctgggagttc acggaggccc ctggctctag ttttgtgttg tcagggagat gttgatcaag	240
caccttgga gtgaaaaagc aatgtcctct acctgttccc tggattcttc tctctttaga	300
cctgtcacct tgaagaaagc atgatcgatt ccaaacaatca ctgtaggcaa atcaccatag	360
tacttgaact gagttactgt gaagaa	386

<210> 45
 <211> 437
 <212> DNA
 <213> homo sapiens


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<220>
<221> misc_feature
<222> (408)..(408)
<223> n is a, c, g, or t

<400> 45
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taatagacag taatggtata gtgaatgaat gaacaaatga atgagttgag aaatccagaa      120
taatacatca caagctacag cgaatttttc ttgctagtgc tcaggacagg tgaaatgaat      180
cataacaggt tgggtgtctgt gaaaagctga cagagatgtg agaggtccca ccctgagggc      240
caacaaagac tctgcagctc tgggcaggaa ccactaaggc tctcagctcc taggtcattc      300
acatcttttt cccttaaccc tgccaaggtc aaccagatga gggagtgtct ttcgggggtg      360
ggtctgttgc ccctctttgc ccatggccgt cattgctgta ggggagtnag ggcagtccat      420
atggctttta aggaccc                                          437

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<210> 46
<211> 242
<212> DNA
<213> homo sapiens

<400> 46 .
tttttcctgt gcacagggtc catttattgt agaaaataat aataattaca gtgatgaata      60
gctcttctta aattacaaaa cagaaaccac aaagaaggaa gaggaaaaac cccaggactt      120
ccaaggggtga agctgtcccc tcctccctgc caccctccca ggctcattag tgtccttgga      180
aggggcagag gactcagagg ggatcagtct ccaggggccc tgggctgaag cgggtgaggc      240
ag                                                                242

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<210> 47
<211> 278
<212> DNA
<213> homo sapiens

<400> 47 .
cctgtgctta tactacaagg atctcatatg aatgcagtcc tgattgttcg acacagcaag      60
aaaattcact ttcacagtca acaagtcatc ttactcagta gaacacaaag taaatggttt      120
ataactccaa tatttgcaag gaaaatacag tacaattac taaaaaatac taaaatatag      180
aattgtgttc aggcattctc actacatcaa tcgcagcagt aacctgaaat ttgagacttt      240
taataaaaag ttcttaaata taaattataa tggcaaat                                          278

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<210> 48
<211> 575
<212> DNA
<213> homo sapiens

<400> 48
gctgtggaac cacagtgggt gtcaaaccag cagagcaaac tcctctcact gctctccacg 60
tggtcatcttt aataaaagag gcagggtttc ctcttgaggt agtgaatatt gttcctgggt 120
atgggcctac agcaggggca gccatttctt ctccatggga tatagacaaa gtagccttca 180
caggatcaac agaggttggc aagttgatca aagaagctgc cgggaaaagc aatctgaaga 240
gggtgaccct ggagcttggg ggaaagagcc cttgcattgt gttagctgat gccgacttgg 300
acaatgctgt tgaatttgca caccatgggg tattctacca ccagggccag tggtgtatag 360
ccgcatccag gattttttgtg gaagaatcaa tttatgatga gtttggttca ggagtgttga 420
gcgggctaag aagtatatcc ttggaaatcc ctctgacca ggagtcactc agggcctcag 480
attgacaagg aacatatgat aaaatacttg actcattgag agtgggaaga aagaaggggc 540
caactgggat gtggagaagc ccgtggggaa taaag 575

<210> 49
<211> 485
<212> DNA
<213> homo sapiens

<220>
<221> misc_feature
<222> (5)..(5)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (9)..(9)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (97)..(97)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (142)..(142)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (253)..(253)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (272)..(272)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (287)..(287)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (309)..(309)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (392)..(392)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (423)..(423)
<223> n is a, c, g, or t

<400> 49
tttantttng ggaaaacatc ttttttatta ttattatattt tattttattta ttttagagaca 60
ggttcttggt ctgttgccctg ggctagagtg cagtggngca atcctaattc actgtggcct 120
caaattcctg ggctcaagtg ancctcctgc cccacccttg agtagatagg actacaggca 180
cacaccacca tacctgggga taattttttt atttttattt cgtaggaaac ggaggggtcca 240
gccaaagtcc ccngggctgg gtctcggaac tnttgggcc tcaaggngat ccctcccatg 300
cctgggggnt ggggaaaaca ataaccctta tggggggaaa ggttccccta aaaatgggg 360
tgaaggaacc aaggaatgaa gggcctaggg antatggaaa gcctttaaat tcttgatttc 420
tgncccttc ctaggttgga tattccctga ggccaaatat tttcactggg gggatttcct 480
aaact 485

<210> 50
<211> 419
<212> DNA
<213> homo sapiens

<400> 50
accacaaaa tgccagaatt tattcaccaa gtgagcatgg gtaacatcca tggatgagag 60
tttaaacatc tcttggttgc tatggagggt ccaagaagaa aacaaaatcc attagtataa 120
aggtttgat ttgctgtgac ctctattgtc ttgagagaca gagtagacag aagaaataac 180

aaatgtgaag tcctggaata tagatgagct tgtgatgaaa gaggaacaga gtgaagggtca	240
gagctgtttg aggaagaaaag caggaagggc aataaaggtc caagtggtag ccagaggctc	300
ggttttattct agatgagaag ggagatgggtg gagtctttta agcaggagag aaacatgttc	360
tgagttacat tttttaaaaa tgtaattctg atttctttgt acaacattga ttgtaggaa	419

<210> 51
 <211> 388
 <212> DNA
 <213> homo sapiens

<400> 51	
ttttttctgt taaattttat tatagtaaca aagtgactat ttttaataat aaaagcagag	60
tgccctgtaga agttggatgg ccctatctca ggccaagtct ccttagtggt tcagacctag	120
gctgaccaga atagtcttct agaatgtaac atttatccac caggtgtcat tatttaccaa	180
tctgacaagc cactgggctg tctccgtgca ttcaatgggt ggaatcaagg ctacagacca	240
gaataggaga tgaatgaaaa tagatttaga aaagggcggt gtggctggaa tgcagcttgc	300
agtgtggagg gcagggatgg gagggtaaag agggctcttt gaaagaccag tgtcactttc	360
ctgatcaagt ttcttaagct gatacttc	388

<210> 52
 <211> 416
 <212> DNA
 <213> homo sapiens

<400> 52	
ttccattaga agtattttat tttaaagtac acttgaaatt ttaaattgtgt acaaattcag	60
aggttttaaaa aacttcgaaa gtcacagaca cagaatttag gaagctgaag gctgagagtc	120
tcccttctca cttaatccat gctttatttt gcattcctca caggtaagga ggcagtgcct	180
gttatgctgt ggacaaaaac cagccccacg gagctgatct tcaaaaaaat ggaatttact	240
ctggcatact cctatgtatg atacctttcc aaggccaaat cccaagagac cagcaactgt	300
aaaagcaggt tgggagagat tagttgagaa tcttctccat tagttatttt ctagagcttt	360
aaaaatcaac gctggtaatt ttaaaattaa aaggaccacg ctaaatcaat gaatga	416

<210> 53
 <211> 329
 <212> DNA
 <213> homo sapiens

<220>
<221> misc_feature
<222> (311)..(311)
<223> n is a, c, g, or t

<400> 53
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ctttctcccc tcctccccca ggcagacccc aaaagtgtca gggaaaggca ggccccctgg 120
aggggtgcgg tggggctgaa gcaggggctg ctatggctac cagaggtgag ctggtgatgt 180
gagctgagtt gtcacatgac actctccacc acgacgacct tgctgctctc ggacactggg 240
gtcaggggtg tcaggcccct gacatctgcg tcctgagctc ggtactccaa gtggtggagg 300
ccccagatgg ngctgggtca ggtgctgcc 329

<210> 54
<211> 412
<212> DNA
<213> homo sapiens

<400> 54
cttaciaaaga aaaatttaat attcgatgag aggttgaacc aggcttaaag cagacatact 60
aggaaatggt gcagcctgta agaatgccag tttgtaagta ctgactttgg aaaagatcat 120
cgcctctatc agacacttag ggtcctggtc tggcaatttt ggctgatgt gatgccacaa 180
gacccaacag agagagacac agagtccagg ataatgttga cagtgggtgta gccctttagg 240
agaaatggcg ctccctgcgg ctggtattag gttaccattg gcaccgaaga gaccaggagg 300
ataagaatat ccataatttc agagctgccc tggcacagta cctgccccgt cggaggctct 360
cactggcaaa tgacagctct gtgcaaggag cactcccaag tataaaaatt at 412

<210> 55
<211> 489
<212> DNA
<213> homo sapiens

<400> 55
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tgacacatta gaaacataaa ctttagggct ttttcatctc cacagcatag aggtctgatc 120
gcttctgtct aaaaacgggg atttgctggc gtatttcagc cagcttcttc aggtctatgt 180
ctgaatacac gattgcttct tctgtgccag ctttggctag aacctcccc caagggttca 240
ccacgggtgct gtgtccccag gcaacatagg aggctttgtc atcccgggca ggagaggctg 300
tggcacatac acctgattat caacagcccc gcttcgctga agtaactccc aatgggctgg 360

tccagtgggtc agattaaaaag ctccctggata taccaacagc tggcagcctc tctgtgcgta	420
gattttgtgca agctctgcaa accgcatgtc gtagcagatg cccagaccca ctctgcagta	480
agctgtttc	489

<210> 56
 <211> 665
 <212> DNA
 <213> homo sapiens

<400> 56	
tttttttttt tttttttttt tttaaaaaga aataaaatgt tttactcatt tacacaaata	60
cacacactga agtccaccct gggagctggt aaaacaatth cagtctcaga cccgtctgth	120
ttccaggggtc ctccgagcct gggcttcctc aagagcgtgg cccaagggcg ccacagccca	180
gatccggcag ccccaccacc ttactgagg aggtccgaa gctccgttcc cgctgctcct	240
tacagacagg ggaggcagat atacacaaac gcgcctcggc ccagcttggg gctggcgggg	300
gaggctgtgt cttcaaact ttgccccag ttgggtcagt agaaccacca gtgtcctccc	360
cttctacctc ccagctccac ttggagggt gaggaagcga gaggttttct aggcagattt	420
ggagccctgg agattgagth cacagtgtat gttctggggg cgctggtgca gtcagcggtc	480
cagtctccag cctgcagggt tgcacactgg ggtggacgat gggtggtccc gcagtgtaca	540
acattgggth ggcccggccc tataccccag tgttctcttt gattcagthc gaaacagagg	600
gagccttgth tacacgcctg gctttgttct ctgagcgcac gtctccccag ctaacaaacc	660
ggctt	665

<210> 57
 <211> 244
 <212> DNA
 <213> homo sapiens

<220>
 <221> misc_feature
 <222> (15)..(15)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (185)..(185)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (225)..(225)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (242)..(242)

<223> n is a, c, g, or t

<400> 57

aaaccatcag ttttnccaat gtgaatggac tggttcatat cacaccatat ttagagatac 60

aaggtgatta taactaacgt gtctacaaga catactgggt caaacaatgt gatcaatcca 120

aagggtatct ttttaaaaag aatttaagta ctgagctgca aagataagtt cactaatgag 180

atttncctttt tttttttttt taaaaaaaaa aggtttttta tgagncaaatt ttattacaaa 240

anct 244

<210> 58

<211> 387

<212> DNA

<213> homo sapiens

<220>

<221> misc_feature

<222> (269)..(269)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (279)..(279)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (359)..(359)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (365)..(365)

<223> n is a, c, g, or t

<400> 58

acaatttgaa ttatgagagt tcactttcag acgaagcacc taacaggaaa tctctcaaac 60

acagaaatgc tggtttagcc acaagatcaa aggaaaagat tgattttgta tgtccgtgca 120

gtttttgaga gtgctgtctac acattttcgt tttcacagca atctttgtgt ttgaaggag 180

ttctgatgtg gaaacagctt gcagggttaa acctggatgg cgcccctgtg atcagacatt 240

gctctgttgt aataaaaagtg tcttcagtno tctttccnc tgatcctcct gctgtactt 300

ctcctcgagt tgctgtttct cagaatctgc acagtaaaat gtgccaatct ggggctttnc 360

cgaanccggt tcaaactgac tgaaatc

387

<210> 59
<211> 262
<212> DNA
<213> homo sapiens

<400> 59
ggatccgcgc ctgtagtaca agacgttgct catcagcagc ttgagccccg cgctgcccgc 60
cgagcacctc gaggaccggc tcttccacca gttcaagcgc ttcggcgaga tcagcctccg 120
cctgtcgcac acgcctgagc tgggccgtgt ggctagtgtg aatttccggc acccacagga 180
cgcacgcgag gcccgccagc acgccctggc ccggcagctg ctgctctacg accgcccgt 240
caaggtagag cccgtgtacc tg 262

<210> 60
<211> 480
<212> DNA
<213> homo sapiens

<400> 60
ttatTTTTaa aactttatTT taaaaatatg agcatctatt ttaaaagttt tgataattat 60
tgccattatt ttcttTgtgat tggTacaatt taaaaataag tctatgtttt cacattgatt 120
ttaaaaaata tagcatgttt gaattacaaa tgattaagca aactctatta cttcatagct 180
gaccatcttc cagaaaattc ccacttaatt gaatacttag aaaaaaatgg ccagtgcgag 240
ttgaaaggta tattaaaatt aagggcagtt ttaattctga agacaaatat cttcatggaa 300
atctatTTgt aagcttctga gattgctgct gaaagtctac agtctgtgaa tataccaatt 360
cccctttaca actgatgcag atcattatga aatactggaa ggcataccct acaatttagg 420
aattggtgtg gctgccactg ctatgctctc aattgcacac tcatcagttc ctctgcggat 480

<210> 61
<211> 425
<212> DNA
<213> homo sapiens

<220>
<221> misc_feature
<222> (162)..(162)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (180)..(180)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (245)..(245)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (284)..(284)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (305)..(305)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (319)..(319)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (352)..(352)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (371)..(371)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (413)..(413)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (422)..(422)
<223> n is a, c, g, or t

<400> 61
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acccgatgcc acccgagtcc cagaggaaga tcctgatgac gctgacagtc aaggttctcg 120
gtgctcgcca tctccccaaa cttggacgaa gtattgcctg tncctttgta gaagtggagn 180
tctgtggagc cgagtatgac aacaacaagt tcaagacgac ggttgtgaat gataatggcc 240
tcagncctat ctgggctcca acacaggaga aggtgacatt tganatttat gacccaaacc 300
tgggnatttt ttgcgcttng tggtttattg aaggaaggta ttgtttcagc gnttccccaa 360
tttttttttg ntcatggcca ctttaccct ttaaaggcag tcaaaatcag ggnttcaggg 420
tncct 425

<210> 62
 <211> 293
 <212> DNA
 <213> homo sapiens

<220>
 <221> misc_feature
 <222> (48)..(48)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (217)..(217)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (240)..(240)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (249)..(249)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (266)..(266)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (274)..(274)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (277)..(277)
 <223> n is a, c, g, or t

<400> 62
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 aatacaatat ttattaagtt atgatatatt gtctgaatgg aaatatactc tgtatcacia 120
 ctctaattat aacaattttt acagataata cttcatttat atctctgtaa ttcaaaagtc 180
 attaaattac aacagaattc atatttaaga taacttngct ataaatatat aataattttt 240
 aaagttttnc tttaatataa catctngaaa tcangancat ttattttttcc tgg 293

<210> 63
 <211> 528
 <212> DNA

<213> homo sapiens

<400> 63

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ttttcttacc atttgcttta tttttttttt tcatttttcc caggtcaatg aggcagcaac      60
attaacaaaa agtgagacat acttttttct tgcaagataa ttcaataatt cttcccaaac      120
tgatgctcca cagataatcc taagaggttt tcattacatt tagcctaatac tggaagatct      180
ggcattctac atatcagaaa taactcccag gctgatatga ggccaacca tgagcactca      240
attccacaca ggggcaatac ctcaagcaga gagagggtt caggccaccc cacttctggc      300
tctttccagt cctagcaggt aaaagaggag atccaggcta aattttctgg cccttcagga      360
aggctggcac ctctggctct ccctacctgg ggaacctcca gggctactgg atcagcaggg      420
actttggggg ttgtttatgg acccagaatt tgtgcaagaa gctccatgct tgctgcccaa      480
caaactcctg aatgatctca gcctctctct ccttttctga acacactc      528
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<210> 64

<211> 151

<212> DNA

<213> homo sapiens

<400> 64

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gaaacattcg tttcccttta ttagctcagt gaggtgatg tgtactgcac atttaaaaaa      60
aatcacagga attttcatac aatgaataaa accacaacaa tacatgtaga attggcaggt      120
ggaaaaaagg cccggcaagg tcgaactaat c      151
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<210> 65

<211> 255

<212> DNA

<213> homo sapiens

<220>

<221> misc_feature

<222> (167)..(167)

<223> n is a, c, g, or t

<400> 65

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ttagaagaaa taaaaatttg tctttattta aaatgtggca attgggaagt acagtacatg      60
cttccctgtg gcttgggggt gtgtagttgg ggcctaatt cttgagccag tcaagagaca      120
cttgggattt agccctcaat tgcagcactg aggcactggg gcgaagnaaa caatcctgag      180
ggggtcccca acccacctag tcactcctta gtttgcagag gcactatctg cagagtcctg      240
tgaaaggctg cagtg      255
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<210> 66
<211> 311
<212> DNA
<213> homo sapiens

<220>
<221> misc_feature
<222> (295)..(295)
<223> n is a, c, g, or t

<400> 66
gcttgtaatt gctctatttta ttaatacata tatcacaaat gttcacata tcaatgcatt 60
cttggttgga tgctagacag aggcattatt tttgaagatc ttttaaaaat attttgactt 120
gttccccctt cacactcatt tttaaattgt ttggatcgag gtcctcaatg tctataatgt 180
caatgcaaga aaaaatacag agagaagtag taaaataaca caatagcaat taattgggga 240
aaaacaaaat atcatggcct tcacaagaag caacaacaca gctttgtaac agggntaata 300
cagggtttcc a 311

<210> 67
<211> 268
<212> DNA
<213> homo sapiens

<220>
<221> misc_feature
<222> (208)..(208)
<223> n is a, c, g, or t

<400> 67
tttttttttc tctctgaagc atgtttttat ttctctgtga tttggttttc tacttttgga 60
cacatgagct gtggctgcat ttcacacaga agctgacaca tctcgagga atgccccata 120
aaacagagcg caaacaatc acccagcagg ttcgcttcac ctgggctgtt actgctgaac 180
tccctacttc taagagcaca ggaagagnaa catcgctttg aatctacagg ataagcgagg 240
gtggggcgag cagcagccag gggctccc 268

<210> 68
<211> 474
<212> DNA
<213> homo sapiens

<220>
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<222> (3)..(3)
<223> n is a, c, g, or t

<220>

<221> misc_feature
<222> (10)..(10)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (39)..(39)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (416)..(416)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (424)..(424)
<223> n is a, c, g, or t

<400> 68
aangataagn aattatttta tttccttggc ctgatggant tgacttcatt atacaagaac 60
ttgcagctga cagaactgac acacacattt cccccaagag aaagaaccct tttcattagc 120
agagatgaat tgaaatgtca tgtctgagtg caattcctgc tccccactcc caccacaaa 180
aatccccaaa gtgaaaataa atcaataaaa tccccatgat ttactaaaag tcatccctcc 240
aaacctttct aactagcagc tgcagtggga tgataaccaa ggaggggaag cagctggcca 300
tcatgtagca ttcctgtgca tgtgagcctg aaggacagc agcatgggga gcaagaatcc 360
tgaatgagag taggtatata attaccttac ttcatacttg cccctccct acatangaca 420
cctntgtcct gatacatggg aaaatactag agggagatgc ttaggagtgg gttt 474

<210> 69
<211> 489
<212> DNA
<213> homo sapiens

<220>
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<222> (399)..(399)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (412)..(412)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (419)..(419)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (435)..(435)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (452)..(452)
<223> n is a, c, g, or t

<400> 69
tttttttttt ttttaggtttt ggaaaaattt tattgcattt tgtttccatg tggaagcact 60
gacagaattg aaaagtggca gcatgttcca cttacttttc tgaaaaatca catggctaga 120
ttaactttcg ccctaccag gacaggattg aataaacctt aactcctacc cccaccccaa 180
gcaaaagcta aaaaaggggg tttctggcaa ttgcttaaaa aacaaatcaa tgtgtgagaa 240
ttccccgatg gtcaataatc atatttgtaa tttttgcact tggagggcac tccctacctc 300
cttcacctct atccaccatc accacctcct tcaaacaaga ctgacacagg gaagtgcctc 360
ttcaaattggg aaaatctatt tctgtcccg tgcacagnt taggggtgtgt cngtggggnt 420
tttgggcat ggggntgggc ctattgtcca anttttgaaa ggggtggggg tctttgaggg 480
taccaccagc 489

<210> 70
<211> 339
<212> DNA
<213> homo sapiens

<400> 70
tttttcagaa tattcaactt tattttccat tgacaaacac gacataaata acacacattt 60
attaaataca cagactagcc atgacttgaa tgccagcaaa agtctaacgt acttttcata 120
cgctctttta ttttttgtct ccacagtatt gaagaccagc ctttaaaaca tactagaaga 180
tatatttaaa tacactgacg ataactaccc ataaaacttt acatagaggt gataaaagag 240
acttttccat ttaatcaagt atatagagat ggatgctgag gaggagaggt gaagaacact 300
atgcttttga tactgatctt tacaatatgg attaaagtg 339

<210> 71
<211> 387
<212> DNA
<213> homo sapiens

<220>
<221> misc_feature
<222> (6)..(6)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (8)..(8)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (75)..(75)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (139)..(139)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (202)..(202)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (282)..(282)

<223> n is a, c, g, or t

<400> 71

tttaantnct ctcactcttta tttttattaa aaaaaataaa acagtcacca ccaaccacat 60

gacaactcgc caggnaaggc ttgcttcctt ccttcctttg cgtcccatgt gcctagtcag 120

caaggtcggg gaggcacna tgttagcttc gcccaaaggg agtattacag agagaggctt 180

gggaaaggga aggaaacctg gncaggcttt tcagcactga gaaatcactt aaaactgatt 240

tgcttttcagt aactggtatg tctgaaatgc agggagggaa gnccatgctg tcagcaatca 300

accactttt tacagggttg ctccaggagg aggttggttg aaacggtggt taaaggaagg 360

gagagtgggt tcaccaggct tgctcaa 387

<210> 72

<211> 457

<212> DNA

<213> homo sapiens

<400> 72

gtctatataa aatgtttatt ttggaggac tgtgtggtct ggtgtttggg agggaactcc 60

acccccacca ggccaacct ggagctagaa acagagacag caggaagggc aaagctggcc 120

actgcctgct ccacccttc acagcccaga gcagaacagg gtctgctcta ctctcaagg 180

gagtgcaga gagccggtac tgtttctgcc cctggatacc ctgagaacct atgtgacttc 240

tgtagtgtctc agccccctgtg cccttcctgg gcctgatcca catgtgtcaa cacacacact	300
ccctctcaca gtctccaaac agcactgcag agcctagctg catctgccag gttcaaagag	360
gaatttttca catttgctca cttccaatct ccatcttcct tcctctgtct cccactctcc	420
cactctcagt agccgcatcc cagccctgcc atactcc	457

<210> 73
 <211> 384
 <212> DNA
 <213> homo sapiens

<220>
 <221> misc_feature
 <222> (81)..(81)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (85)..(85)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (152)..(152)
 <223> n is a, c, g, or t

<400> 73	
ttaacacgta acacaaaagc ttttacttgg aaactggcaa atactggact agaatactga	60
catgctcacg ctctggcggg ngtcnggatg cagaagctat tgcacaaagc ccctctgatt	120
gccttgctcc tctttggcat gtatcagcag ancccaaggg caattgcca caggtgggga	180
ctgttctcca tcaaggtatg gggacccta cttccttggt ttgttaaaaa gtgcaggtag	240
gcgaagaagc ccaggcagtt gaccagctct ttgaaacagc tgactcccca gcaccagtg	300
tccactgggc agatgagagg tttgcaccta taccagccct tgtttccttg ggtaggggct	360
caagttgtca gtgtccaggg tacc	384

<210> 74
 <211> 442
 <212> DNA
 <213> homo sapiens

<220>
 <221> misc_feature
 <222> (433)..(433)
 <223> n is a, c, g, or t

<400> 74	
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aaaaagccac catttctctc aaatgtcatc aattacataa gacctcaaaa cacacactga	120
tttgaaaaaa aatccatccg tattataaac agtgaagaca gattaatgtc atctatttca	180
tagtagcagg tcttccttga tatttgtaac aggcagaaat atttgatttt actcttttgt	240
caccagagat aattgccaca tcacttgcca acatgatgaa ctcatTTTTat taggtcaaAT	300
gttgaattcc actcaagtgc acttaatata ggtactacac attataagtt gatcgaaatt	360
aaagaggtct ccaattagga aatggggatc ttcaaaaata ctatttacta attttccagg	420
ttgtatgttt ccntgggggtt cc	442

<210> 75
 <211> 326
 <212> DNA
 <213> homo sapiens

<220>
 <221> misc_feature
 <222> (232)..(232)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (252)..(252)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (259)..(259)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (273)..(273)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (299)..(299)
 <223> n is a, c, g, or t

<400> 75	
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attaatgcat ttaataaata tatattatct atcaaaagtg agccttagct cttcatcagt	120
taataaaaag cacctgctga ggaactcctg taaggctggg tatcatcatt ggcatcattg	180
ggttataaaa gccacaatgg ctccctttca acttgggggtt tgggcctgag gnggtttcaa	240
ctcagccttg gnccaacng ggaccaccac cengagttca cccttgtttc agtgggggtnc	300

tgacgggcat ctggggggtt aaaaaa 326

<210> 76
<211> 507
<212> DNA
<213> homo sapiens

<400> 76
tttttttttt agaaaggatg taaaatatatt attaagggtt ttgctgcaga ggacaacata 60
aatagcatta agtcctcctg aaatgtaatt agtgtacaca tcaaccagtt gataatttgt 120
gggtgggaaag gcaggaactc aagctgggac caggttcccg catccgaact tggacgagtg 180
cgtggtgaag gctcggctcc agggaccatg cctgcagctg ctctctgcca tcgcctctgc 240
aaaagtctgt taggcaaattg caaaagtgc agcagaactt gcttgaagaa caaccacccc 300
cgaggcacag ggtgcttaatt ccaccccttc aaatccttga gcattttcca cggccatgag 360
aagtttctct cgtaaattctt caaaggtttc atatggaggt aagtcaaggc gattaaagca 420
tgtgtgagct ctgggcagtt tctcaggact gcccattgc tctattgtaa acagctgagg 480
aacattggaa ccataaaggt cggcaaa 507

<210> 77
<211> 530
<212> DNA
<213> homo sapiens

<220>
<221> misc_feature
<222> (332)..(332)
<223> n is a, c, g, or t

<400> 77
cacacttaca aagttagagg cagtaatcta tattagcgtg tgattaatca aagagtacac 60
ttactacat gaacttgggc cctatgtcat agaattattt ttgcctttcc cccaaagaat 120
catttgctct tgaagtaata ggcttttttaa ggcacatttt aacaaaaacc catcatatac 180
ccagcttaaa catggaagct ccaacctggt tatagtaata aatataccta agtaatgtgt 240
gatttaccaa ataggctagt gtctctagct tgaggataaa gtcattattag aaaactgatt 300
cttcatttgc ttattcaaag tgaaacaaca tngtaaaaaa tattagagaa ttagatttat 360
aacaataacc cctaagtgtc aggtctgttg gcaaagggtc aacaggatat agctctggaa 420
atcagggagc cctgggctct aaaccatcca ggtttcggag taggaatcat gaggaaagga 480
gttagggcac ctttaattatt tttagaaatc tcctttcaaa tgcacagaac 530

<210> 78
<211> 463
<212> DNA
<213> homo sapiens

<220>
<221> misc_feature
<222> (193)..(193)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (230)..(230)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (345)..(345)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (396)..(396)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (413)..(413)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (433)..(433)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (450)..(450)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (458)..(458)
<223> n is a, c, g, or t

<400> 78
tttttttttct tgatcaacat ttttatttta ttttttttagg tgaagtagaa cacaatagaa 60
tggctcaaaa atatcagaat gcactacgca catcacgagt aaatactgtt tggtaaaact 120
tgtttcagtt aaatatgtac gtgtccgtgc atgtcatgat taaatattcct tcttaccaca 180
gtcaccctaa agnaaccaaa gcttagggac tagggacaca accatgcagn aaagagcagg 240
gagaccagac actctggggg tgaggatgat gaatttaatg ccgcagccgg acaccacat 300

ttcacacttt gggcttcctt tcagacaact tgatctttgg gggantagaa tttgttacag	360
gggttcaaac accacatagg aaggcacgtg gggccngcca cacacagcat tcnttttttag	420
gtgaggaggg ggncagggtta cccttgctctn catgggttnca agg	463

<210> 79
 <211> 348
 <212> DNA
 <213> homo sapiens

<220>
 <221> misc_feature
 <222> (3)..(3)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (5)..(5)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (160)..(160)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (336)..(336)
 <223> n is a, c, g, or t

<400> 79	
ttnanatggt tattacagat ttattggggg aggcccaagg agaagaccta tcatcatgtc	60
acgggagctc acgttcata ccaggaaagg agtggttcctg tcaccagggtg aagggggaag	120
ggtcctggga ccgggcagtg ggaggcctcg gggaggggtn tcatcagagt cttgaatgga	180
cccagacgct ctcttccgc caggacagga tgcgtaggag cagagaggaa gcagctttgc	240
tggggaacca ccctggggtc gtttacttga accaaaggct cctggggggc agccagaggg	300
ccaggggagg ttaacacggt gcttcaggct ttcttnttct tggggccc	348

<210> 80
 <211> 439
 <212> DNA
 <213> homo sapiens

<400> 80	
tattttaata cagacaaaat agattctttt attttataaa aacgtaataa agtttggttat	60
tcaacaactg ttatttatta attttgcctt tgtatatgct gccagaaaag aaatattaag	120
aaatcctgac ttggtcatgg tgaatcagaa ggcctacctg gattttttta tcaacttaac	180

tgcgcagtag atcattcaac ctcaaatttg ttttttatga cactccaagg atgcccttag	240
ctgcatcact cctttgtcat caaaagctta gaaataacaa ttaagcagat tcctgagtta	300
ctaaatgaca cataactaga attgagactt aggaactttt agttccatgc taagcccaca	360
gggacacaac atctctaaaa cattaatcat aattgggcac aaatattttt tgtcacgatt	420
ccctcctgcc ctcatattgc	439

<210> 81
 <211> 508
 <212> DNA
 <213> homo sapiens

<220>
 <221> misc_feature
 <222> (302)..(302)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (420)..(420)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (466)..(466)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (485)..(485)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (494)..(494)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (506)..(506)
 <223> n is a, c, g, or t

<400> 81	
accttttttg attttattcc agatcagtat tttatttttt ttacatatat tgaaatctca	60
aggtaaaaag ttgaatacag ttaagaccaa aggcttattc ttagatttct gagcttgaaa	120
tatactattg cctattagaa aaccaaattg ctataaaagg tattttatatt ttcttttagat	180
atntagacac ttaataccat cttcagcatt agagttattt aatggggttag gaataaaaaat	240
gcatgatctt tgacttttctt ctctgggtga agtacattta gaagactgct cctattgggtt	300

cnataaatat gccaggggag ctcatgtaag aataggtact tctcaatatg ccagcattca	360
tgcccatggt agtaattagt agtttaggtg gataaactcc aatggatatcc ggggtggggcn	420
cctgacacac tcctcccgga ataccggccc tccctttggc catccnccaa tgggcatggg	480
cacanccccc atangtccta ggtecncc	508

<210> 82
 <211> 371
 <212> DNA
 <213> homo sapiens

<220>
 <221> misc_feature
 <222> (1)..(4)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (187)..(187)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (205)..(205)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (270)..(270)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (317)..(317)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (322)..(322)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (360)..(360)
 <223> n is a, c, g, or t

<400> 82	
nnnnggagtt taccttgttt cagatgcagc catgggtagg tcagagatgg actgttggtg	60
caataaaccc aagaatcaat gtagcctctt aatcccatca agatgtagtt tgtagcagca	120
aagtgtacag tctgaaaccg tatgttttat ccttatattt tagagctttc agcagccttt	180

ttaaganagg ccacttacca aagtnatttc tataagctca agagtgtttc ggttggttaag	240
ttcttccagc tgaagccact ttttccttan agttaatata aatcgactat ttttacttta	300
aaaggcacag ctgtccnggg tngggaaatg gaaacctgca gcagttcagg attgactaan	360
gaaagcaatt a	371

<210> 83
 <211> 449
 <212> DNA
 <213> homo sapiens

<400> 83	
cttattcaat aaactctttt attctagtcc acagattttt ccattacaat aataatgaaa	60
atagcactag taatttgtaa cactgaggcc caaagggaaa cccctcctca aattataagg	120
taaatgacac aaagttgaac ataggggtcag tgttgggcaa aaagcattta aaatatagat	180
aacgggggtca agattttgtg tgtgtgcaaa cactggggtt tgtttttcag gatgacacca	240
ttttagaaag tgcattgattt tgaaaactat atgtgtaatt gtgacaaaac taaactgtag	300
agaaaagaca aaatcaagca aaaacaaaaa ccaagaaacc aaaaggaagc aaatcaaata	360
caaggggagg atatgcaaac ctccggctct ttggccctgg aatggcaagt gagtgggctt	420
catagaaatt ctctgtagaa aggaatgtg	449

<210> 84
 <211> 419
 <212> DNA
 <213> homo sapiens

<220>
 <221> misc_feature
 <222> (395)..(395)
 <223> n is a, c, g, or t

<400> 84	
ttttgttttc ttataaaatg gaaaacttta attgttttaa gaaaaggcac aagtaaacad	60
ttcaggttat catacaatgt tacaataaaa aattccaata gcaaaatgaa acacattata	120
actttgcttc ttggtagtat actgaatcgt attattctat catctcctct ttggagtaaa	180
aagaagggat aggcagatca atggatgtga tgtaaaaact tggatcataa atagcatcca	240
ctataccttt aaccagaaat taaacttcag tagaattaaa attaatTTTT aaaacttagt	300
tttgtttaata atagagcagc agtaactttc aagctaaaac tcattgtttt agtaagtaaa	360
taactgattt catgaaatgt tcgctgtcaa tgtcncggta tgggttaatat acattaatc	419

<210> 85
<211> 430
<212> DNA
<213> homo sapiens

<220>
<221> misc_feature
<222> (250)..(250)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (423)..(423)
<223> n is a, c, g, or t

<400> 85
taactgttaa tagtttttaa gtaaagtgtatacatagctt taataacgat tataatctga 60
agaaagccat tcttcttata caggatggaa aatcctcaaa gcaacatttt aaaccatgga 120
cactagagtt gtcatacatc tattcagaga tgagagataa acagacatcc ttccatgtgg 180
aaacagacac tcccatgtca acaagtcccc taggatcaga gagaaaagca gaccctgggt 240
caatcactan ggtgtctctg gtgtctcgct aaagatggag tcctatgtag gttggcctaa 300
gttggcctca gagggaggtg gctgagcagc aaagcaagac agcatgtgtg taaccagcca 360
ggcaaaataa caagtctgtg ctacctggag tgtattttca ggaaaacagg accatatgga 420
gtntggggca 430

<210> 86
<211> 388
<212> DNA
<213> homo sapiens

<220>
<221> misc_feature
<222> (355)..(355)
<223> n is a, c, g, or t

<400> 86
gaatacatac catacttttaa taaccaagac aattcagctg tttttccaga gtatatttca 60
aacagagttg gcatataacc cgtatgtaac aatattgctg tgattttagt catatttaag 120
ggtcacaaat atgttcacaa aagaacagtt tgtgaatgtc aaccagtttt tgctttatat 180
tccttcaaaa acattccacc ctggtcattc aactaatct acatcactga aaataaccaa 240
aataattcac agtctcacct ctatgtaaaa attctaattg actcaacagg gaaaggactg 300
ccctgctcct tttgaggaag gaaacctgca agcaagttct caatccctaa aaccnagcaa 360

aaatggttcc agtgcagttg ctgtagcc 388

<210> 87
<211> 282
<212> DNA
<213> homo sapiens

<400> 87
tttttttttt tttttttttt gcaggccaaa accctagttt atttcagcat cagcagtatc 60
ttagccatca aaaaaataaa ctctaccaag ggtgacggaa gtctctacag caaggctaag 120
ggctcgccag acgggaacat caggggtgca tgggtggcac tgccacggca ataagttagg 180
aagcagcagg gctggtgtcg ggtgtgggcc gggcttcatt tctgggcagg catgaggtcg 240
tcgatggcct ggccctgctc cagccgctgt tccatctcga tg 282

<210> 88
<211> 468
<212> DNA
<213> homo sapiens

<400> 88
ttttaacatt tacataatat atttagaatc acatggtttc cagtgattag atttcagtca 60
tgcctggaaa ggagaagaca gtggctagga gcacattcct tataaaggat acataaatgg 120
tataacttagg atgactaata ttaagaatth aaacacggtg catttttttc ctcaaaggaa 180
gcaatttttag tttctaaaga gcattttactt ctgacatctc gattcctgat ttcagtggct 240
gcagactgtg tacttctgtg ccacacttag gacaagtaaa gtacacgtca aataagaaac 300
tactcttagc acagaaataa cagaaaatat gctcacatcc tatggtgtga ggcatgggtg 360
ggcactctcc acatagagcg gcttctttgc cactggtggc taaatggatt gttcaccaat 420
agggtgcacc cgtaagaggg attacccctc tgaggacagg ttgggttt 468

<210> 89
<211> 648
<212> DNA
<213> homo sapiens

<400> 89
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tgtaaaagggt gactcctttc attttaaaaa gttatatatta atttttgggg gccttaatta 180
aaatttaaca ttttaaccatg tgtttttttt ttgtaaacag tctacatgtc aacaaatgga 240

taagggttaa caaaggcaaa tactgacttc atttgtgttt taaacacgat tatatgaatt	300
tttctttttt aattaaaaaa atgacataaa accattcata taggtcctct tctctcaact	360
gctttgagat atagctttta atatgggtag atcaagacaa gtaatgttgg taatctctta	420
tcttgcatag aaaagaaaaa ataaaggaac ttatttcctt cctaaggtct cagctagttt	480
cttaagtctt ttcttcagct ccaatggaaa tttctcatag cacttcttac agactggctt	540
catgtcaaac tccacaaact tattcttgag tgttaattta gtgttgcagg tagaacaggc	600
aaagcagttc acgcaccagg ccttattaag agcagagacc acattccc	648

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 <211> 403
 <212> DNA
 <213> homo sapiens

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acatttggtc ttccatacag agactcattc tttatatata ctcaacggta atttgaatcg	180
ttaggaatcc tgagaaacac tcacccttg gacacacat gtacacagcc ccacggccaa	240
ccctccagaa gctgggtttc ccatggttca attactagaa gctcttttct cagaaggcca	300
aacattcgga atatttagat gacactgtcc catctcccct tgggaaaatc ataaggtttc	360
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<210> 91
 <211> 669
 <212> DNA
 <213> homo sapiens

<400> 91	
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ccacatccaa ggtcttaact tacagacaga aaccaaagta gccatttaaa gcgttagata	120
tcggatacaa gacatacact ggggagaatg cttcaccatc tgaagctcac accacaatgg	180
cccagtggac agctgtgcac tctgcttggt ctttaagtgc tgggtgtggc tgatgggaag	240
gcgtgtctgc agaacagaag aacagctgtg tttcacaagt actgaagcat tttagactgc	300
atgtgggggt atatattttc atgttgaagg gaagagggga aatcagccaa gtccctcccc	360
acagagcatt aagctgccct gcagaagagc cacggcagag aagcggactt ctccctgctc	420
aggcccggta aattcctgca gaccttgga gcgctctttc agcaggtgtc ctctgaactg	480

gggccatggt tcacccgaaa aggcattcgt ccatcaaggt catagagggt ggccaccac	540
ttggttaaca ggataaaaat ggagattctc cttgtcagct aaccggaatt ggctttcttt	600
ggccacggta taagggg'gcg ctttaaggccc caatttttaa aaaatttgcc ctgttctgag	660
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<210> 92
 <211> 383
 <212> DNA
 <213> homo sapiens

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 <223> n is a, c, g, or t

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 <223> n is a, c, g, or t

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 <223> n is a, c, g, or t

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 <223> n is a, c, g, or t

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 <223> n is a, c, g, or t

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catgcttttg aggccagcgg ggctcgnctt gtgacaactg ccgcagacct ggggggtgaa	180
cccagtcccg aaggcactac tggccagtcc tacaaccagt attcttcaga gataccattc	240
agagaacaaa cactaatgtt taatttgccc aatttgagtg cttcatgcct tttaggatgt	300
tacaggctng acagagaagg ttttcccag gagttaaatc atctttttnc catttcccga	360

ggggnaagg cntgtttttn ttt 383

<210> 93
<211> 447
<212> DNA
<213> homo sapiens

<400> 93
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agcatttact attaaccaaa gagttgtgtt cacattccag ataagtctac gtggaaaagc 120
attcagaatt tactaggttt ttgctacatc actatttcat ctacaatagg gacaacaaac 180
tgacactcag gatttgatgg gctctcatta caatgctata catttaacag gaacaaacat 240
cagtgacttt gagaaaaagt tataaaaaaga ccaaaaccac ccactgtaga atgggctctt 300
ggatgttact gtacagcgtg gtcaaggtaa caagaagaaa aaaatgtgag tggcatcctg 360
ggatgagccg ggggacagac ctggacagac acgttgtcat ttgctgctgt gggtaggaaa 420
atgggcgtaa aggaggagaa acagata 447

<210> 94
<211> 367
<212> DNA
<213> homo sapiens

<220>
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<222> (145)..(145)
<223> n is a, c, g, or t

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gctcccacct gaaggagaat aagtacctga ttgtggtgac cgacggggcac ccctggaggg 120
ctacaaggaa ccctgtgggg ggctnggagg atgctgtgaa cgaggccaag cacctgggag 180
tcaaagtctt ctcggtggcc atcacacccg accacctgga gccgcgtctg agcatcatcg 240
ccacggacca cacgtaccg cgcaacttca cggcggctga ctggggccag agccgcgacg 300
cagaggaagg ccatcagcca gaccatcgac accattcgtg gacatgattc aaaaattaac 360
gtgggag 367

<210> 95
<211> 445
<212> DNA
<213> homo sapiens

<400> 95
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gtccccagaa gccctgtgcc cacgaacccc tgtgggcgga ggagagaggc ggggactccg 120
ggagcttcct gagagggccg tgtcttggga gcaaggtgac atattcagtt caggcacgcg 180
gaacatgaac tcaggaagtg gggagacaga gagaccatc cccaactcc caggacgggg 240
gccaggcccc tacaaaaggc acaatggcag ggcaggtttg gcagagtggg tgagtgtcag 300
gggtcgacaa aggacaccat gatgtagcgt gtgccccagg tcgttggcag cccctcgtgg 360
tagtggtgga ggcggccggg gtgcaggagt gccagccct tcctcgggga ggagatcaca 420
cagtcgtagc gcaggaagcg gcagc 445

<210> 96
<211> 235
<212> DNA
<213> homo sapiens

<400> 96
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aaaagaaact aagagcccca aagttaaagc tggtaaaata gttcaagaac ttgcagcaag 120
tacctagaaa atattaaatg gttaggacaa aacattcaca gttcaaggtc ccaagaaaat 180
gatctggtga gcaaatacat atacacactt aaaactaatc tggatgaatt agtga 235

<210> 97
<211> 354
<212> DNA
<213> homo sapiens

<400> 97
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aagcatgtgt aaggcactgc ccccgccaga cccttctaac ttctgcacac tggaagggtga 120
aacctggaga gagaagacac tcccctccct agcttctacc tggcacctc caaagatgag 180
cattcatctt ggagaccaa ataaaaaagg acaaaagacc aggctcagag ggagcagagc 240
tcaatggggg gaagtgaaag cagccatctt ctctgcagc taagccaggg caaggcacta 300
gagaccaca tccttcccat gccaccaact cgtcaggtcc caccaagcaa gcca 354

<210> 98
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<212> DNA
<213> homo sapiens

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<223> n is a, c, g, or t

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<222> (535)..(535)
<223> n is a, c, g, or t

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<223> n is a, c, g, or t

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tgaccagggc gagggggaag gccacccagg ccagggcgaa cagtatccga agctgcccc 180
tcgcgggtgc ttctccagga tctcctcggc gtgaatggca tagatcaagg cgccagtaaa 240
caccgccacg ctggtgcaaa gctggcagag gccggtggat agaagagacc tcctcgtcgc 300
atggtgtaga gctggaacat gaacaggatg aaggagagac agcagagaat gagggagagc 360
accatgagga cctgcaccgc cttcagccag ccattctcgc tgacattact gcaggcccat 420
gttttggtgt cgttgttcca cgtgcagtcg taccagagat tcagggactc tttcccaggg 480
agagtccacc aggattgtca aagtggcacg aaaagcatat aagaatgagg atgtnaaagg 540
tgagacacca naagagagta catgctgcat tgaa 574

<210> 99
<211> 534
<212> DNA
<213> homo sapiens

<400> 99
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caaaaaagcc agaacaccct acccaaccca gcccagtgtgta acaggtttagc cattaacaca 120
gaataaagaa ggtcccagcc acacacgtca ttactcggca gaggggtgtcc agcctggtcg 180
gccgacgtca cagtggatgg ccctgcgtgg ctgggacaca gacaggagagc aggcattggca 240
cctgcgccac gcagagcagc aaggctgagc atgaccactg gaaataaata aacatggtgc 300
cgacagcatc tttaaattag taagacgtta gcacaaaaca aaaaagcaca acgactgaaa 360
atgcacttgc ttgttgttgt gggttgtgct tgaaacacct gaagcccca gtgggaaccg 420

ctggggacgt ttgtcagtgg aatttgaga aaaaggacgg aaaaatcagt tttctgagaa 480
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<223> n is a, c, g, or t

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<223> n is a, c, g, or t

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<223> n is a, c, g, or t

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<223> n is a, c, g, or t

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<223> n is a, c, g, or t

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<223> n is a, c, g, or t

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<223> n is a, c, g, or t

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<223> n is a, c, g, or t

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<223> n is a, c, g, or t

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ctgancaaag gncatgatcca ggggtttaana tttcaaaaac acagataaat agtttactac 180
agataaatag cttcaccctt tgggggtgctc ccagaagcat ctgaaaaatt tctagagggg 240
gtctgttgaa gatgtgtaac tagtacaccc caacccccaa ccncagtggg aaacaatgcc 300
cagggattag gctatggaag ggcaaaatgg gnccatttca aatttccncc cagggaccag 360
gccctattaa ccccgggaaa tgtccttagc tgggtggggga aaggttggcg 410

<210> 101
<211> 412
<212> DNA
<213> homo sapiens

<220>
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<222> (150)..(150)
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ctgggagcag gccctggggg ggctccgcn agtgctgttc tacctgaggt ctacttgtgt 180
ctccccctt gttctctgcc cccagacat ggccaaagcc tttcccacaa tgtcccatct 240
gagagcctta tggatgggct cacagggcag aggtaggagg agaaagagga aggggcatgg 300
tgggcaccag ccctggggca actgagggca cagcacgtcc ccagcaaggc acgctcagta 360
gtagtggggg aaaggcacac agaggcagcg ctgaggactg ggaagaaagg ac 412

<210> 102
<211> 311
<212> DNA
<213> homo sapiens

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<223> n is a, c, g, or t

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<223> n is a, c, g, or t

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<222> (83)..(83)
<223> n is a, c, g, or t

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<223> n is a, c, g, or t

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<223> n is a, c, g, or t

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<223> n is a, c, g, or t

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<223> n is a, c, g, or t

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ctcaattcag ttcaattgtg anccactagg ngaancagat ttaaatanct atcaggggggt	180
acagngttaa gngtnccagc cttccctctt ggggaaaact agggcaaagt aatactgaga	240
aaaagtggag gaagccanac cttcaggtca ctccantgag gagnctggga ggggacagag	300
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<210> 103

<211> 448

<212> DNA

<213> homo sapiens

<400> 103

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atcactattc tgaggaagga gaggtttgcg ttgtttctag taagacacag ccctctgtgg	180
caccaagggg ctctcatgtc cagtccaggc cccagtctct gcgggagggg ggagcagacg	240
gggttagcac cgттаатсtс gaggtcttg agtcagcca gcgcccctgc gagtactctc	300
tgaggtcggg gtcagtgtg gtcagcagcg gcctccaggg ctgtagggcc aaggtccagg	360
ccggtcacca gcaggaccct caggagacgg ggccgagtcg ccgagattta tgtctgcaac	420
ggcctcctga ccttggtttt cccaaaaa	448

<210> 104

<211> 456

<212> DNA

<213> homo sapiens

<400> 104

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gtgtagtgga	acatgcaaag	ctccgacggt	ggaggcaggg	gtggtcgctg	ctgagaccag	180
ggctgggtgc	aacaggaggg	tcagcacaga	gcctggctgg	tgtccctggg	cccaaagggg	240
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gaggggcccc	tggacctacc	aggaggacag	gtctgcagtt	cccagccatg	ccggctggaa	360
cgtccgcctc	cccactgggt	ctgggtcctc	ggggcctggg	gttagaggcc	gacatggaag	420
gacttactag	gggaacagag	gctggaggct	gacgcc			456

<210> 105
 <211> 359
 <212> DNA
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gtacaactct	gaactgagaa agtgcaagga gaccacggga atggaagtgg gtaggggtcg 180
ggaggatggg	caccaggctg gtgtcctgac agccacacct gggcgcaggc cacgtgtcct 240
cacggccaag	gtaaccgggt gtctcaggca cttataaat attaagggtg accggtgact 300
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<210> 106
 <211> 603
 <212> DNA
 <213> homo sapiens

<400> 106	
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tcacaggtaa	gtgcagctca ggatcctgtg agtggagcag aaagtcttaa gaaatggcag 180
gggctggttg	aaccagatt ttccattggc tgagcagata tccccagagg cgtagaaaat 240
taaatttggt	ttatgttggt ccaaaagagg agaactgagg ccagaggagc acacttctga 300
gacactcatt	tttgctgggt agaggaactc tcctggccag caggaccatc gatattagag 360
cagctggcct	caggagggag taagagcccc atccctgaag gtacacaagt tgtggcagca 420
accatctggc	ctgcagtttc cagaggggag tcaggcgtgg ggtgggactg gagtgaacgg 480
gtagatgctt	ccacatgcgg cagttggcac tgacggcagg aacacggggg tggcttaatg 540

ggctcctgggg ctcctctg cctcaggaa ggcaggagca tgaggggctt gggatgcagc	600
acc	603

<210> 107
 <211> 146
 <212> DNA
 <213> homo sapiens

<400> 107	
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aatcccgctct tctctgtggc actggggggtt agaggggggca ctacaggcta tgaatgtggg	120
aaaagagggg ctgagagggg ttgggg	146

<210> 108
 <211> 501
 <212> DNA
 <213> homo sapiens

<400> 108	
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cctgaagaac tgtcagcgtc tgattcagct ccagcatcct tggccacctc cccacccggg	120
agtcaagggg cgtggttctg ccttgaacag gccacaggcg tgctgtagag aggccagtgg	180
tcacaatgag cccacgacag gaggaggagc cctggcttga gggaagggga aggcccaggc	240
ctgtgccggg acccagggct ggcagccacc agtcctcttt ccaggcatgg gggacaccct	300
gacaggatcc ggaagtctcc atttaccbaa aaatgcaaga gccatgatca gtcattggcg	360
caactgcaggc ggtactgagt gaccatgtcc agtcgggctc cgtccctccc acacggggga	420
caagcttctc cgaggaggcc tggccaaggt ggaacaaata ccctgatgtc gaaaaattct	480
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<210> 109
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 <212> DNA
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<223> n is a, c, g, or t

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<223> n is a, c, g, or t

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<223> n is a, c, g, or t

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<222> (420)..(420)

<223> n is a, c, g, or t

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<223> n is a, c, g, or t

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<222> (440)..(440)

<223> n is a, c, g, or t

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 aggctctcgc ctagccctgc cctctggggg tcaactgcgtg ggtagggccc ccaaaaaagc 180
 ctaggaaagg agactggaga gggctggctg aggggtgggtg gggcgtctct ncacattttt 240
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 agntacggcc ccaccggccc accctnccca agtaactttc acagtnttcc ccagccctgg 360
 ntgccctttg cggcccctac cccagnccctg nccctaggtt tgtntctgta ggttntcagn 420
 aatttattga acntggtaan caattaaaga tttcaaggtt tttttggcca tgggg 475

<210> 110
 <211> 435
 <212> DNA
 <213> homo sapiens

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 <223> n is a, c, g, or t

<220>
 <221> misc_feature
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 <223> n is a, c, g, or t

<400> 110
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 cccacaaaac atacaggcaa atttgtattc tgtgagtttc tcacaccctc acacttgttc 120
 accaatctct aagatgaaaa actctcttcc aaaatngtat tcagccacca acaatgatgt 180
 tattaatagg aatatgggat caatttcaca aagaagccaa tgaatcccat tatagcaa 240
 cctattgctg ttgccatgga atcttctgga attcttttct atcaggttta gtgcatcttt 300
 taaccagccg aatggagtcc cttacaaact ggccggactt ggntcaacaa actgcattac 360
 ctgatccatg gactggccta cccaaccgga cacctaaaat ggccagggga cacgtagcac 420
 tggaggcctc gtgcc 435

<210> 111
 <211> 618
 <212> DNA
 <213> homo sapiens

<220>

<221> misc_feature
<222> (545)..(545)
<223> n is a, c, g, or t

<400> 111
agtcgggtcc ggcgtcctcc tcatactctg tcagacaatc tgactcctct ccgtcagcac 60
agccatcaga gacatagctc gtggggggct caatccggga cacaatctct gccaaagtcag 120
tgaagccaga gcttgggaag gcaagcacgt ctgcacggcg gctctcatta aggtctgtag 180
accgccggtc tgtgagcatt ttctcaatga cgttgccacg gctccagcct ccaaacaccg 240
ccttcccgtc ctggtagccc acatcataga tctggtcgaa cttcccaaag tccatgggtct 300
tgaagcagtc gatgggcggg cgcagggtact cgcagtagga gctggacttg acaacctcta 360
gctgccgcac acaggacacg taggccaggc gggactggat ttcagccatg tctggaacct 420
ttaccttgct agcccaggga ttcagccgct tccacagcag ccaccagccg gacaggtgtt 480
ccccgtagtg ctgaggtccg tctcatcctg gctccccacg tcaatggcga tgaccgtttt 540
ggcanccatg ctgcgggcga tgtccgtggc agattgttga tgtagccgcc atccatgagt 600
aagtgccggt cttgggtc 618

<210> 112
<211> 442
<212> DNA
<213> homo sapiens

<220>
<221> misc_feature
<222> (436)..(436)
<223> n is a, c, g, or t

<400> 112
taaataaagg cctctttcat taccaaaaca aaacaaaaaa aagggaacaa aatacgatgg 60
gagagggaag agatgatgcc gaagtgtcat cctgactgac tgtccctgca gtgcccatgg 120
gtcccgtgcc ttattcattc tcctctctca tttccacgat gtctgtcacc tcctctgtcg 180
gaggcatgtc tgtcatggca gagtcttccc cctccgtggc cgactcattc tccatcttct 240
ttttctgctt ccggtagaca tagcacgcag cgatggcgaa ccatgggtgga ttctcccaca 300
aagcccgccca ggaggagacc cacgcccagg gtcgcaccgt gcacccccag ggtagggtag 360
gaccacgagg ctgggcgatg agggacgatg atccgcagca cagagttggg ggcaaggacg 420
aagggttttt tcagtntcat tt 442

<210> 113

<211> 316
<212> DNA
<213> homo sapiens

<220>
<221> misc_feature
<222> (66)..(66)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (68)..(69)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (152)..(152)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (161)..(161)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (262)..(262)
<223> n is a, c, g, or t

<400> 113
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tatcangnng ggatgatggg aaccctcaa aaggcactag aggcgcagat cttcgggaca 120
agaggggaaga gatgcgccag agaccagggc tngggcagct nggggggtccc tgagtgccag 180
gcgccaccac acgtcctgtg ggtcaaggcc cctcctcttg ggagcaggtc tacggcacgg 240
aggatgcagg gctgggaggg gnccccacct cggggaccca aaaggagtcc atttctgccc 300
tgccccccgc aaagca 316

<210> 114
<211> 573
<212> DNA
<213> homo sapiens

<400> 114
atatataata tatatatata cttttattat tcacccggtta actccattat atgccaatca 60
cgagctagtt ttcagcagtt acattccctt gatcacggct gcatgaggat gtaattaact 120
ggaaaacacg gagaccagag acacgaccgg agtcgacgtc acgcagccca cgccatcgca 180
atacaattgt caagttcgct ggcgggtttgg taaagccggt tcagttctgc tccctttgct 240

agggattctc acgtgtgtga aaattggagc aacagtgggtg gggttccatt tcctggttcg	300
aattttcagt ggctttatct aaaatcgac tggtgactgg ttattgtagc accagtccaa	360
ccttctctgc ccccatgctg ggcattttcc aattgtaaag gtaatactgc aggttgccgt	420
cccctatgcc aaacttgagc ttctccagga aggttttggt ctccatgaga tccagtgcac	480
tgaacacatc aaaccctttc attttggcga ggacaagggc gtcgctcatg aggtctagaa	540
gaggggtctg ggtgtgaacg ttgtagaaag aat	573

<210> 115
 <211> 352
 <212> DNA
 <213> homo sapiens

<400> 115	
ctccttcagg ggcatttatt tcccggtcag aaaagaagca gggacaggcg cctctgcctg	60
agcctggcag acacaacacg aagaccgggg atggggcggg ggaggcacag gagacggctc	120
tcagcaatgt gtgcacttgg tcccttggtt gttcctggct gggtcaggga aggcctgccg	180
gggggtggtg cactgagagc ctgggggaac aggcgccagg ccagtggcca cgggacggca	240
cggacggagg caataaatac tgatggccag gcggggctcc tggctgggcc caggtggggg	300
gggtgaggct gtccatcgag ggctcttggg ggggtgtggg ctctgggcac tg	352

<210> 116
 <211> 390
 <212> DNA
 <213> homo sapiens

<400> 116	
tttttttttt tttttttttt tttaactggc cgagtcaata ttttattaaa aaacacacaa	60
acacatgcac actggttaaca aaggcagaga tggagaggag acacaagatc tccttgggga	120
caggctgacc acatagtgtt tctacaggca cgcctcactt caggaaagag ggtatctcta	180
agaccggact gacaagctag ataaattagg acagggcttt gtttcttaag gcacttcact	240
cccctgagga gtgaagtaga acggatttag gcgggagtat tcacaaaccc cttcagctgt	300
gctaagtggg gttcatcagt acctgagggt gttctagaag caggaaggca gaaaacattt	360
ccctggaggc tgctttcctt tcccagaatg	390

<210> 117
 <211> 250
 <212> DNA
 <213> homo sapiens

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<400> 117
tttttcattt tcaaaagggc ttttattaaa ttctcccccac acgatggctc ctgcaatctg      60
ccacagctct ggggcgtgtc ctgtagggaa aggccctgtt ttccctgagg cggggctggg      120
cttgtccatg ggtccgcgga ctggccgtgc ttggcgccct gggtagtgtc tagctgcttc      180
ttgccgggca cagagctgcg ggggtctgggg gcaccgggag ctaagagcag gctctggtgc      240
aggggtggag                                         250

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<210> 118
<211> 421
<212> DNA
<213> homo sapiens

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<400> 118
caacatacgt ttttattact caaggacaac ctggacgtca ccaatgcccga gcttcacggg      60
ggcatgtagt gtgactcacg gctgaacaca aaatcactgt gaagcctgtg ctacagccct      120
gggctacttt tggacacgca agaggacact cggttacatg aaacctgact tgcttctgaa      180
gacatgtgat acatgtcttt tccctgaaaa tgtttccctt ccctgtctgc catgctccca      240
acttttctgc cttccagggg cttctcactg tctgggtaac taggtcttgg gcctagctag      300
accttgggta gtggccctc tgccacaatc agtgccctggg cctgaggctg agcttgtggc      360
ctccgaagcc tgaactggct cggagctcgt ctgtggcgcc cagggatggc ctggcttgca      420
g                                                    421

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<210> 119
<211> 376
<212> DNA
<213> homo sapiens

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<220>
<221> misc_feature
<222> (146)..(146)
<223> n is a, c, g, or t

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<220>
<221> misc_feature
<222> (220)..(220)
<223> n is a, c, g, or t

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<220>
<221> misc_feature
<222> (226)..(226)
<223> n is a, c, g, or t

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<220>

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<221> misc_feature
<222> (250)..(250)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (265)..(265)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (274)..(274)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (311)..(311)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (325)..(325)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (334)..(334)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (343)..(343)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (352)..(352)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (366)..(366)
<223> n is a, c, g, or t

<400> 119
ttgctgcgac agtctcttta ttccatctc agtctccct gcctgctcat tcctggggct 60
ccaggcccaa tgctcagcag cagagagttt ataaataaat aaattacaaa agcgggcagg 120
gagtggcctg gccagccctc ccgggnctat ggctcagtgc tcagtgagtg acagctgcag 180
gatccgctgt aagtcctcct cctcctgctg cccgcgccgn tcccgntcct cctgctcccg 240
tgaagacaan tccagggggc agggngcagt gctnttcaaa gctgggtgga ccgggggctg 300
ggggtttctt ngggaaggga tcctngggcc cctnggggttc ttntgggaaa ancttgccag 360

<210> 120
<211> 295
<212> DNA
<213> homo sapiens

<220>
<221> misc_feature
<222> (11)..(11)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (14)..(15)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (17)..(17)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (121)..(121)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (154)..(154)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (160)..(160)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (195)..(195)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (241)..(241)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (248)..(248)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (278)..(278)
<223> n is a, c, g, or t

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<220>
<221> misc_feature
<222> (289)..(289)
<223> n is a, c, g, or t

<400> 120
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gttccagctg tgaagtgctt gggcaggaga ggggatcttc cagtgggatc tgtgtccaca      120
ngggggggcct cctaggctga gcggggctgg gcancctcan ttcttgggtgc gaaggacctg      180
ctcgtgggtg gacancacct tgccatcgtg cacatccatg accttgggtgc ggatttgggc      240
ngctgganga ggtcacatct ctggatgact gcgatccnga ggagaactng ggagg          295

<210> 121
<211> 237
<212> DNA
<213> homo sapiens

<400> 121
tttttttttt ttgcctttta aaacagcagc tttaatgccc cccagaatca gcaccatgtc      60
atcacaggct tgggtcaagg ggcgggtcag acgccagtca catccgctca ctgccacag      120
ccaccccccc acagtgagtc atctgccagg gtggcaggag ccacaatggg ggtttgtcca      180
caggggggaa ggctagaccc acgggaccaa gtcactgaaa taacggacgt gcacacg      237

<210> 122
<211> 619
<212> DNA
<213> homo sapiens

<220>
<221> misc_feature
<222> (577)..(577)
<223> n is a, c, g, or t

<400> 122
tcctcgtcct cctcgggggc ctaccgagcg gctacggcgc tcactgaccg cgtccgtacg      60
gcatgctggc gggcaacgag aagctaacca tgcagaacct caacgaccgc ctggcctcct      120
acctggacaa ggtgcgcgcc ctggagggca caacgcgagc atagaggtga agatccgcga      180
ctggtaccag aagcaggggc ctgggctcac cgcgatctac agccactact acacgaccat      240
ccaggacctg cgggacaaga ttcttgggtgc caccattgag aactccagga ttgtcctgca      300
gatcgacaat gcccgctctgg ctgcagatga cttccgaacc aagtttgaga cggaacaggc      360
tctgcgcaat gagcgtggag gccgacatca acggcatgcg cagggtgctg gatgagctga      420

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ccctggccag gaccgacctg gagatgcaga tcgaaggcct gaaggaagag ctggcctacc	480
tgaagaagaa ccatgaggag gaaatcagta cgctgaggag gccagtggga gagcagggtca	540
gtgtggaggt agattcgctc cggcacgata tcgccaatc ctgagtgaca tgcacgcaat	600
atgaggtctg gccagcaga	619

<210> 123
 <211> 603
 <212> DNA
 <213> homo sapiens

<220>
 <221> misc_feature
 <222> (169)..(169)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (195)..(195)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (371)..(371)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (462)..(462)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (480)..(480)
 <223> n is a, c, g, or t

<400> 123	
aaaaagacat atttctatth tatttccgga tgtgattttc cagcaggcaa ataaatacaa	60
tgaggagagg gggaaggagg gggatcctta taaattagaa acaatctcag gtggggggaa	120
ggtgggtggg ctggcagggg aggtggcagg caggagccc actgctggnc acagtgcctg	180
gctttgcacc ctgtncccca ggctctgcca gctcccctca gtggctggct cggttccggg	240
gtcataaggc gctgcggtgt tggatgatcc ggcttgctgc tgtctgagcc agaagctcac	300
aagggtcagtc actttgtttt ccaccagggc ggcgacctgc tgcaggcggc aggccagctt	360
gcagctttct nggccacag ggtcctctc cagggcagtg ataatctgat catagtacct	420
gtggatgtgg ttgtagagtt cttgcatagc ctccagacag tnggggagca gaagtgtagn	480

ttccccggaga gctcagccaa agcagagttt catctcctgg gtaagctcgc ccggagagct	540
ctggcgaaat gtccgcatta gtacctcttc aacatctgct tgtagagtgg gatttcccgg	600
gcg	603

<210> 124
 <211> 358
 <212> DNA
 <213> homo sapiens

<400> 124	
caaattttca gtagttttat tgaaaaatgc ctcttttggt tcagaaataa ataataaag	60
gcagtgaat tcacaatctg cagttaaaat ataaaagcag caattctatg ttcatagtct	120
tgcaaagtgt ttccaactac ttttgataac taagaaatat tatattctga aaaaagttca	180
tactaaatat acaacacaaa catgcaattc cctctctgca gaataatctg caatttggga	240
taaatgttag tgtgtctaaa acaaggaggt ttaaggcaat atggaactgt atcccgttga	300
tgcactaact tcatctacat ggcttaaggt ttgtggttgt taaagagatg tatacgag	358

<210> 125
 <211> 350
 <212> DNA
 <213> homo sapiens

<400> 125	
gggcccgtcg caccggggcg cctgccagct cactctgaga gatgtgggcc ccagggcgga	60
gaacaccagg cgggtgggag tgctggggcac accagcagtc aggcgagagt cgtgggagga	120
gacggaggtg aggggtggagt agtccctggg cagtgtgggt gagtgtgagt gttctgagcg	180
ggccaatgag ttgtagtccc gtgtgagggg ggaggatgtg cttagcacgc ggtggggcac	240
gtgtgggctc aggtgggtgc catagcagca gcactggctg tggatcatct gtgcaggag	300
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<210> 126
 <211> 289
 <212> DNA
 <213> homo sapiens

<220>
 <221> misc_feature
 <222> (278)..(278)
 <223> n is a, c, g, or t

<400> 126	
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taagtgggtg	cacacaaaaa	ggcacttagc	tcctggccat	ggcagccggc	caggggaagg	120
aggggagaac	caagcaggga	gacggggcac	aggggaagacg	cacggcagct	ccttctcccc	180
tggccagagc	gggcctcagt	ggctgggagc	aggccccagg	gacaaagatg	ggtgggtcca	240
ggcctcagag	aagggggaca	tcatagacaa	agaggcantt	tcttgggag		289

<210> 127
 <211> 238
 <212> DNA
 <213> homo sapiens

<400> 127						
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gctctagaga	tctgagcttc	ctcccaatgc	taaactgctt	tcattgcta	tttctgactg	120
tttacttacc	gggtaagagc	gatgggactg	ttttcattgg	ttggttctca	catactctct	180
gggaagtttg	ggttctcagg	gacacctgct	cctcagctgg	ggaccatggc	catggcca	238

<210> 128
 <211> 469
 <212> DNA
 <213> homo sapiens

<400> 128						
ctctttacaa	cagcctttat	ttccggccct	tgatcctgct	cggatgctgg	tggaggccct	60
tagctccgcc	cgccaggctc	tgtgccgcct	ccccgcaggc	gcagattcat	gaacacggtg	120
ctcaggggct	tgaggccgta	ctccccagc	ggagctggtc	ctccaggggc	ttccccctga	180
aggtcagcca	gaacaggctg	tcctgcacac	cctccagccc	gctcacttgc	tgcttcaggt	240
gggccacggt	ctgcgtcagc	gcacctcgta	ggtgctgctg	cggcccttgt	tattcctcac	300
caggatgttc	agaggttcgt	cgcatttgct	caccaccagc	aggaccgtgc	tgccggggcc	360
caggcccatg	gctggcaagg	ggtgaccctg	tcctgcagcg	ccacaccgct	cgggtggaca	420
gccagacgct	gctggaaggc	gtgcagcaat	tcttctgggt	gatctgcgc		469

<210> 129
 <211> 464
 <212> DNA
 <213> homo sapiens

<400> 129						
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caaaagcagt	actctaaaaa	ataattatta	ttatattaac	aatatcaaac	acgctaactc	120

ctacacacgt acaaagacct tgggcatcct ttataccggc cacttcctgg ccacagcttt	180
gtaaggcagt acctgggaaa aggggacaga cccaagagag cgggccccaa atcctgactc	240
agcactgcag aggcattcagc gggcctgagt catgcctgag atcgaagggc cccctctcag	300
gctgagaagg aacttttcagg cccagggagg agcagagcct tagggggagc acatgccgag	360
caggaaaacg agctcacatt ttcttggggg agagcgaggt gcccggcacg aggggatgaa	420
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<210> 130
 <211> 332
 <212> DNA
 <213> homo sapiens

<400> 130 tttttttttg gtacacgcac tggcttgttt attagaaaaa gtcttagaga cttagtaagg	60
cacgaagtcc aggaagcggg cagggtcccc tgggggacgt tgaccaggaa caccagggct	120
tcagtgccgg atgccccact gtggtgggag ttccccgctc tctccagcag ccccgctccc	180
gtggagcctg aggacaaggg agccctttca tccgagatgc tgagtatggg caacagggag	240
gaggggaagg aagaggcagc tccaccgtgt ggggtgtggcg gggggatggg gctctgcagg	300
agcctgatgc tcctcgacc ctgaaggcac ta	332

<210> 131
 <211> 393
 <212> DNA
 <213> homo sapiens

<220>
 <221> misc_feature
 <222> (11)..(11)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (174)..(174)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (348)..(348)
 <223> n is a, c, g, or t

<400> 131 tttttttttt ntttttttta aggattttta aaatatatct attttgaaaa tattctgaaa	60
gtaattaaga tcacctattg ggaaggaaag aaatcaacac aatgaaattt aggaagagaa	120

atgcaaaagc agctgcagaa tctgtcccct tccaccccaa ggggcacagc cggnaggatg	180
aagcttattt taggatcaca agtgcacgct ctggtaggac ggaggatgac tttgtcagtc	240
ttctgggctg aagggccttg tccaaagtca ggatcagaaa tagggtcagc tcatcatgct	300
tgggctttgt tgggtcttgg tagttaggat aagggttcaa gggctttntt tttccatgag	360
gggagagatt tgggacactt cgcagggttt acg	393

<210> 132
 <211> 473
 <212> DNA
 <213> homo sapiens

<220>
 <221> misc_feature
 <222> (254)..(254)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (285)..(285)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (342)..(342)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (346)..(346)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (424)..(424)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (462)..(462)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (468)..(468)
 <223> n is a, c, g, or t

<400> 132	
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agaaaaggag gacgggcggt tgcacagatg aggatgagga tgaagatgag gatgaggatg	120

ggccaggagg ggacacagca ggagccacag cagcaaaaca tccttgaaga cgacacacgt	180
gaccaagggg cacacacggg gggccccctg ggcaagcctg acgcagatga atagacaggg	240
ccgactgccg gcanggatgg aggggtgggt ggggaaagcc ctcgncctcg gagctgaggg	300
tgagaccag gcatgtggtc ccgccgacct gctgcccagc ancccnggat tccccgggg	360
ctgcccttgg tggccaaggc aggtggagct tagccggttc gaggtttctg gactgaggcc	420
cctnccccag tgcggtcatc ccaccagaa cttcgtctt gncctgncc att	473

<210> 133
 <211> 344
 <212> DNA
 <213> homo sapiens

<220>
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 <222> (195)..(196)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (198)..(198)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (226)..(226)
 <223> n is a, c, g, or t

<400> 133	
gagcaggagc tgggcctttg agggccctgc tccaaccca agctgcattt atgatataac	60
ccatcacagc tggattttta aaatacacia aaaaatatat aatatacatt ataaaaccta	120
ggtgggggtt ggaggtggcc tgagcgatat gcaaacagtg aggaccttca ggaagctcgg	180
gcagggctcg gatgnngnag ggaaggggca cagtacttca tatganactc ataaataccc	240
acaggtggct gctggacagg ccagctggc tctggggggc tgggtgttta agaagggaca	300
gcaggttgaa ggggttaacc ttcaagtccc agaaactggg gtct	344

<210> 134
 <211> 310
 <212> DNA
 <213> homo sapiens

<400> 134	
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atggagttac cagattttta aaccaaccaa cacttttctca tttttacagc taagacatgt	120

taaattctta aatgccataa tttttgttca actgctttgt cattcaactc acaagtctag	180
aatgtgatta agctacaaat ctaagtattc acagatgtgt cttaggcttg gtttgaaca	240
atctagaagc aatctgttta caaaagtgcc accaaagcat tttaaagaaa ccaatttaat	300
gccaccaaac	310

<210> 135
 <211> 403
 <212> DNA
 <213> homo sapiens

<400> 135	
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gttagtgatgc tcaggggatg ggtgggctgt ggagatgatg acagaaaggc tggaaggaaa	120
gggggtgggt ttgaaggcca gggccaaggg gtcctcaggt ccgcttcttg gaagggacag	180
ccttgaggaa ggagtcatgg caagccatag ctaggccacc aatcagatta agaaattctg	240
agaaatctag ctgaccatca ctgttggtgt ccagtttctt catcatgcgg tcaaggacac	300
cagggtcctt ctggttcttt gtgaaggcag ctagttctgt attcatgaag cttaggaact	360
ctgtcttgga gagagtgtag ttataaccat cctttccagc ata	403

<210> 136
 <211> 465
 <212> DNA
 <213> homo sapiens

<220>
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 <222> (230)..(230)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (463)..(463)
 <223> n is a, c, g, or t

<400> 136	
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attaaaccag tgctgtgtga aggcacttaa ttggggagag gtggggcagg gatcctggta	120
gagaccaatg tttcccaccc agacccaag actgctggga gagatgggtg cagcagtgac	180
tcccaggaat atccagtggg gtgggtggccc atcccaggcc cggctggcan ggtggctggc	240
ttgctggggg atgtgatgat ggtggtaggc atgggaggca ctttggacgg gatctgattt	300
ggcaaaagga agtggtttcc tgtccccagt gatttccagc ctttccaga cttcccaagg	360

ctaaggcaga ttactaaatt taaggctggg gcctccttct tccctggact tccacaaaaa	420
cggagaacca gcagtcctcg gggctgcttt gtctatggag tancc	465

<210> 137
 <211> 461
 <212> DNA
 <213> homo sapiens

<400> 137	
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caagcgatga gaagagggcg ccaggagccg tgggggtcccg aggtgggtca gatggaagcc	120
atgggacggc cgtcccaggc ccgcgcaccc gcacctcagt ttcccctttg tgaaatggga	180
agcttatgct tccttccaag tctgcaatat tgggtcgatg agctaaaagt ggagcgaaag	240
acacaaggaa gaggcttccc actcccagga cctgccccca agctccgacc ccacattgtg	300
gatgcaaaga aagggaattt gcccaaaacc cactgcccag gggccccttc cgttttgggg	360
aagtgcagtg ctctctggat acccagaagc tggagcaggg gccagtgact cttgtctgga	420
caatactttg atttttagg agtggaggtg gcctctgggc a	461

<210> 138
 <211> 442
 <212> DNA
 <213> homo sapiens

<220>
 <221> misc_feature
 <222> (348)..(348)
 <223> n is a, c, g, or t

<400> 138	
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gcttgaattg ttttcctttt ccacccccaa agaaaataca caattatcag caccacaca	120
tgtatacact caaaactaca gtgacattct ctacacagaa ctatattcga tatagcttga	180
actgccgaaa aatcaagaca attccaaaaa gtgattgcag ggttgatttt tttctccaaa	240
acactttgag aaacacgtaa agctatttca acaaaagtct tttctttgat tgtcaaaagt	300
tgaaattcac atttaaataa aaagagatcc aaatcaagat cctcactnac cccctacccc	360
tcaactgaac ccccttttag ggccacattt tcttcttgct cctaagaaaa aaatttggaa	420
ttttgaatat tctcggtttt ct	442

<210> 139
 <211> 242
 <212> DNA
 <213> homo sapiens

<400> 139
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 gctctttctta aattacaaaa cagaaaccac aaagaaggaa gaggaaaaac cccaggactt 120
 ccaaggggtga agctgtcccc tcttccttgc caccctccca ggctcattag tgtccttgga 180
 aggggcagag gactcagagg ggatcagtct ccaggggccc tgggctgaag cgggtgaggc 240
 ag 242

<210> 140
 <211> 337
 <212> DNA
 <213> homo sapiens

<400> 140
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 ttgtcaagtt ttttttttct ctgattatct gatgctagct ggaattcaag aaatggcatt 120
 gaccttattc aaataaagaa atattttagt aaatttgctt tttccttcat tgatcttgga 180
 taataagttg ccatttgttt ttcagacaca acctgtattg tgatagcatt tcatttatca 240
 catgcttttag gctctgcccg aggtggcctg ctgcatgcag aggcagtaca tggaagcatg 300
 ccacgagaac atagaaatgg gtcattggata actgttt 337

<210> 141
 <211> 402
 <212> DNA
 <213> homo sapiens

<400> 141
 aatttggctc cagaatTTTT ctggcagggg gacgtttcga agaagccact gctgggacgc 60
 acttccattg cagtctctaa tgctgggcac ctggctatcc tcttctgtgg ctttatccag 120
 gcactgatta ctgttcacat gctgcagggg taatttcact gggtcatact cccagagttg 180
 gttgcctttt aggtggtggc atttgagcat tgtaactggg ccattaagtt tggaacatc 240
 caagcaaagg tcatctgttc taatttcttt gttggcagta taagagaaaa cctggaaatt 300
 tccttttagga tttggcagtg gggaggaact ttggaaattg ttacatgctc acatgttgga 360
 catgtgtttc ggaaagctac accttacacg tttccggggag gc 402

<210> 142
<211> 443
<212> DNA
<213> homo sapiens

<400> 142
ggacttcatt tttttaatag atatagatat agatttatat ttatatataa aatagttttt 60

tacaaaaaaaa tcaaccaaac aaaaaattaa aatcaactta aaaaaacaac aaccaaacia 120

caataacaaa attcaaacag gagcagagat ggggctgagg cataggggag gcccctagcg 180

ctgccctgag gaggaggggg tgagaggctg aggcactcag tctcccttct gcttgggtgc 240

ttgccagtcc cattggccag agcagtgggg ttgcctgggg atgaggcatt tgggtgtctgg 300

gaggtgcctc gagaggtgtg tggggggcgc aggtaggtgc tgaagagttt cccatagagt 360

gggtcatgga gggagaagtt ctggaactga cagagggaga ggccttggct ggatcctgcc 420

tggcacagct cagcatgcaa agc 443

<210> 143
<211> 376
<212> DNA
<213> homo sapiens

<220>
<221> misc_feature
<222> (146)..(146)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (220)..(220)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (226)..(226)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (250)..(250)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (265)..(265)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (274)..(274)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (311)..(311)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (325)..(325)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (334)..(334)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (343)..(343)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (352)..(352)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (366)..(366)
<223> n is a, c, g, or t

<400> 143
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ccaggcccaa tgctcagcag cagagagttt ataaataaat aaattacaaa agcggggcagg 120
gagtggcctg gccagccctc ccgggnctat ggctcagtgc tcagtgagtg acagctgcag 180
gatccgctgt aagtctcct cctcctgctg cccgcgccgn tcccgntcct cctgctcccg 240
tgaagacaan tccagggggc agggngcagt gctnttcaaa gctgggtgga ccgggggctg 300
ggggtttctt ngggaaggga tcctngggcc cctnggggtt ttntgggaaa ancttgcagg 360
cttttncttg ggaagg 376

<210> 144
<211> 302
<212> DNA
<213> homo sapiens

<220>
<221> misc_feature
<222> (42)..(42)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (48)..(48)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (197)..(197)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (255)..(255)
<223> n is a, c, g, or t

<400> 144
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ggttgaaagc cccacttggg tccccgaggg tccattgagc cctctcaggc cagctccagg 120
aatcctggcc tggtcacaga gcagagttgc ttgcagggtc ctagtggcca tcgggctggg 180
gcaggacatc atctctnaaa gggtcagagg ctgagagctg gtgcagctca gcaggtcacg 240
gccctccacc agctntgggt tctcccgcat catgtggtgg ctgcttttcc cccaccaggg 300
cc 302

<210> 145
<211> 446
<212> DNA
<213> homo sapiens

<400> 145
ggcagacact tccatttaat gactaaaaat cacacatctc aggtcacggg tctaggagaa 60
aacacacaca cacacacaca cacacacaca cacacacacg gattccccat caaggggaca 120
tttgcagttt ccaaaccttg aagatactga agggaccaga aagttccttt gagtggctgg 180
tcacccaaag ctcccggtcc tccaccact gccctttgga gggactcaaa ccttgggagg 240
agaaggctga gcttctgtg ggcccctccc acccacacct gagccagaga gaagactgca 300
gcaaagacat ccaaagccaa cgcaatggga agcgtccgag atggcagagg agccagccct 360
gtccttggt caccagctt ccaccataca ggaaccaag accccagcct tgcttcaca 420
gagaactggc aggggtcccc tggcct 446

<210> 146
<211> 416
<212> DNA
<213> homo sapiens

<400> 146
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 ctgacactga gcggtggggg gaccttgtgg aggaaggaca cagcaggctt ggccactgcc 120
 ctgaccagtg accactcagg gctgcccctt ccagagatga gcgtaggggtg gggctctgagc 180
 gccacccta ggccgtctgt gtgcagcggg agtgctgctg tcctggcgcc cggcatcact 240
 gtgccagagt cccagccca ccctggcact ggcagggtta ttatgggggtg gacttgcctg 300
 tgttgggggc tcctgatccc aaaacatcta aagtcagggtt ccagagaaca agccatgggg 360
 acctgaccag caaccgggga cctccgtcca ctgtgcggga cggtgatgaa aagcaa 416

<210> 147
 <211> 437
 <212> DNA
 <213> homo sapiens

<400> 147
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 gcaaaccagt gacaagaaat tgacaaacac tccttctaca gcttcctgag acagcaggct 120
 ggcttgtggc cccctgggtg gtaacatctt aaggaatcct atcatgtttg tttatatatg 180
 ctaaaactgta aaaacaaaca cttcatgcga caatcattct taggtcaaac acaagaacga 240
 actattttga aatcaattcc tcacactttt tccctgaata tgcagtactg tactactaac 300
 atctaattct gtagaaaata atgcatttgt tagtgacttt gttagagctt gaaaagaccc 360
 ttttagaaat tatttaaagt atcactcttt aaaaattttt tttaatctca gaatctacta 420
 atgtgacaga caaacgg 437

<210> 148
 <211> 213
 <212> DNA
 <213> homo sapiens

<400> 148
 gcaaatgcaa taatgcctc accctcctga gaggagcccc ctccctgtgg agcctgttac 60
 ctccgcattt gacacgagtc tgctgtgaac cccgcaacct cctccccacc tcccatctct 120
 ccttcaggc ccatccctgg cccagagcag gaggaggga gggacgatgg cgggtgggtt 180
 ttgtatctga atttgctgtc ttgaacataa aga 213

<210> 149
 <211> 347
 <212> DNA

<213> homo sapiens

<220>

<221> misc_feature

<222> (2)..(3)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (10)..(10)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (15)..(15)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (172)..(172)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (213)..(213)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (240)..(240)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (269)..(269)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (292)..(292)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (301)..(301)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (322)..(322)

<223> n is a, c, g, or t

<400> 149

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tcccaggttt ttgcagtgca aagccagggc gccacctgct ggtagccctc aggtgtaggt 120

tcgaagctgc tggggccccc ggggggtttgg gacacaggag aatttcaggc tntgagtgga	180
gacagttact gccacgattc cacaggcaag ttnttcacct caaagatctc ctgcaccgan	240
tggtgaaagt ggtcgtaggt gaggcgcant tttagccgca gggggggcct tnttaggatt	300
naggattctg aagagctggg tnataggaag gccaccccga gctggaa	347

<210> 150
 <211> 234
 <212> DNA
 <213> homo sapiens

<220>
 <221> misc_feature
 <222> (185)..(185)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (211)..(211)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (225)..(225)
 <223> n is a, c, g, or t

<400> 150	
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gataaacttg cacataacat tcttggttgt gacagcagcg tctgtaaaact gtcagtctga	120
ttctcagcct cgggttcac tttgcatagg tgttctgtct aatcacaatt atggatgttt	180
agggnccttg tttggtccgt taagtgatgc nagtttaagt ggtanaagtt taca	234

<210> 151
 <211> 556
 <212> DNA
 <213> homo sapiens

<400> 151	
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aacggcagca ccaggggtct ggcctgagaa cggagagatc cggaatcggg gccaaaggtgt	120
atccttgacc gcacgacaag gagtaatggg cggacctgaa cccgcgacga ggggctgggg	180
gccaaagatgc ctgggtcggc ccttacggct ttgggagtgt cgcaaccaca tgggggcgcc	240
agagacccag acgccgcccg ctggcctttt atttcgtatt gcacttcagg tgagtcattg	300
gtagggaggc gagtgctggc gtgacgagat gctacgggtc ggtggatctg gagcacagcc	360

tgcagcttca caccgggaac atccactcgt gggctctgat tccgtactgg atctccttca	420
gctccttctg gaagcggagg atcagctcag gccattttc ccagggtggga aagtggaggt	480
tcctgtcttt gtacaggatt cggcgcactg ggcaaacctg gcaaacggtg cccgagccaa	540
agacttcccc gacgcg	556

<210> 152
 <211> 440
 <212> DNA
 <213> homo sapiens

<400> 152	
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gagcaciaaag gggaaagcat ggggcagtca cgggtgctca gggaggtcat acagcatctg	120
cccagtcag accctaccgc tcccctgccc caggaggtcc tttaagagca gcgtccagat	180
gcagctcgga cattggggac cctgcctctc cctccccaga ctggagaaca gctttgggtt	240
gtcaaacactc cccctccagc caggccagtc acagacgaca tctcagcagc caggagaagg	300
cccactaggt ccggggccag cgcagtccca gcagctcctg ctctggaca atctggtgtc	360
tgctgtcca cacggtgtgg ggcccaggtg tgccctctgc caacaacccc acgatccgac	420
ccccacagtc ccacccatgg	440

<210> 153
 <211> 429
 <212> DNA
 <213> homo sapiens

<400> 153	
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taacatgtga ctggtactat gccaaacact tcatattcct tcaacagata gcctgtaagc	120
tcctgctgtg tgacagacac tgttcgaatt tctaggaata ccacaatgaa caaaacgcaa	180
aaattcctgc cccgctggaa aggagggccg acaaaacata aagcctcgct gatggcagaa	240
gtcccgcggg gaaaaattaa gtggggaagg ggaaaggag cccaaggggg ctacaatgtg	300
gaatttctgt ttactctca caactgcttt gtgaggagta cataccacta tgttacagaa	360
gaggacactg aggcacagag aggttgagtg agttgtataa ggtcacgaag gtaatcgggtg	420
acagctggc	429

<210> 154
 <211> 329

<212> DNA
<213> homo sapiens

<220>
<221> misc_feature
<222> (270)..(270)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (308)..(308)
<223> n is a, c, g, or t

<400> 154
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aacacgggac ctccccaccc caagcctagt gcctctggac gcccataacc agtacacaag 120
tcctgaaga gtccctttta aaatcactaa tataaaaaag gagcgaagga gggaaggccg 180
accgccaca ggctgggcag ctctggttc ggagcaggg ccaggaagg acagaggggg 240
cgttggcttc ggcgcaggaa ggcacaggcn ttccagccc cggggcctcc ccgagccggg 300
aggtcttncc acacgcctgg gactgcaga 329

<210> 155
<211> 475
<212> DNA
<213> homo sapiens

<220>
<221> misc_feature
<222> (351)..(351)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (362)..(362)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (396)..(396)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (472)..(472)
<223> n is a, c, g, or t

<400> 155
gattagtcaa atatttttat ttgccaaag aactctaaaa gcctttggtg attcccaaac 60
atacaatgaa ccccaaataa aacaaaacca aattgcacta ttacaaagga acaagtccat 120

gaaagtagag aggagtcgcc agttaagga cagcaacttc aaggagacgg ttgttttttc	180
gtttacatgt tgggacactc ccatttttct ggtttccctg aataaacttc acacatactt	240
tgtcctgtct gaactgtacc aggaactcat cggaaatctc aatattgagc ttctgtttgg	300
tttggtgag agttcgtcgc gatagagctt ggtggccatt tcaatcaggt ngatcactgc	360
tngaagagaa agtctccttt actagctgct tctgancctt ctttgagggtg gacggcgaag	420
aagccatcat tttgtgagct cattggatac cttgggtcac atccaccagt gncct	475

<210> 156
 <211> 353
 <212> DNA
 <213> homo sapiens

<220>
 <221> misc_feature
 <222> (310)..(310)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (341)..(341)
 <223> n is a, c, g, or t

<400> 156	
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ggcaagaggg aacagaaaga ggcaaccagt ggctcccaa tgcaccctg gatgtgcaga	120
agctgtgtca gctgcttggg tgtgattttg acctaacaca gagctgcca gaccaggggt	180
gaacaagtga tgtcagaagt ttcaagcctt gtgttgaata gcaactgatgt tatttaggtt	240
taagtcttta agaaaaaggc tccgctggca ctcaaagcc cctgtttttc aaccacaaaa	300
agccctggan tgtcaaagga aatcatggtg ctagccacta nacacttcaa ctt	353

<210> 157
 <211> 259
 <212> DNA
 <213> homo sapiens

<400> 157	
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ctgtccaggg taaaggggaa gtggtgtctt gtggcccgag gtttggggcg cttgccttgg	120
gactccatcc ccattctctt cccgctagcg cacgtggggg aaggtgcctg cttgccggcc	180
ccacggattc ttcggctgtg gcataaggca ctgtgtgttc tgcaggaagg cgctcatggc	240
tggctggtag atgagaggc	259

<210> 158
<211> 586
<212> DNA
<213> homo sapiens

<220>
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<222> (174)..(174)
<223> n is a, c, g, or t

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<222> (451)..(451)
<223> n is a, c, g, or t

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<222> (483)..(483)
<223> n is a, c, g, or t

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<222> (500)..(500)
<223> n is a, c, g, or t

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<222> (561)..(561)
<223> n is a, c, g, or t

<400> 158
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cagtgatggt cccagggccc tgaggctggg gtgaagctgt ttctcccaga gggnaccctc 180
tgtggctgcc attcccagct gtctgtgacc actagcctct ggagtgagaa gggcaagatc 240
tggggacttc ctatgtcact ttccaagggc ttcagccact tgaagggcca aggaggggga 300
tggtggaaca atatctatct tgataagaaa ctacagctcc cagcagagga gaaacatcct 360
ctgagtttcc ggcccagact caggccaacc ttcacttgcc tcttgggcca ccctgcacct 420
tcttcttttc tctggatgga ggtcccgttt ngcagaaaca cttgtcttcc agctctggga 480
ctnggtccat attagagctn agaggagggg gttttgcttt taggattgca gccgttccca 540
gagccattac ccaccaccca nggccaggtt agcttttttg gaaggt 586

<210> 159
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<212> DNA

<213> homo sapiens

<220>

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<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (22)..(22)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (80)..(80)

<223> n is a, c, g, or t

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<221> misc_feature

<222> (335)..(335)

<223> n is a, c, g, or t

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<221> misc_feature

<222> (357)..(357)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (406)..(406)

<223> n is a, c, g, or t

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<222> (421)..(421)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (430)..(430)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (483)..(483)

<223> n is a, c, g, or t

<400> 159

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cggaccaggc ctacagcccn agggaggacc ccagtcacag gggtgaaagg ggtgcttgag 120

ccctttgttt ccagaagagc agagaaaatc tcatgatggc aggagagcag gcagcacttt 180

tccagcacac tggccaaagc cgatgcgggt aaccatcccc ctggcagtac cctgttatga 240

tgacttcac cccgtccagc agaaacttcc tggctctgacc attccccagg tctatgggct 300

tcgttccctt ccacgacagt tccaacatgg agccnaagtt ttctgggtcc ggcccgtga	360
tgggtcccag aagccaggga ggtccccgg ccgcagggtg cagccnttga cagagttggt	420
nagtgaagctn ctgcagcatt cgtccagtac atgtaattta aaattggatt tgcatatggt	480
agncgct	487

<210> 160
 <211> 309
 <212> DNA
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gcatccacaa ggtaaaaatg aatgtttcat catccaacat taccaaccct ggaatgttga	180
tcttgactta gcctagctag gtttggggac gtcggcacca cgtccctcag ctaaaacagc	240
tatgcaccct tccccgcccc cacttaccta tctagatagc gctgcccaga ggaagaggcg	300
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<210> 161
 <211> 615
 <212> DNA
 <213> homo sapiens

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<220>
 <221> misc_feature
 <222> (397)..(397)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (434)..(434)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (452)..(452)
 <223> n is a, c, g, or t

<220>
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 <222> (490)..(490)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (563)..(563)

<223> n is a, c, g, or t

<400> 161

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aagtagctta cccattcctc tagtgataga catttgggtt gtttccagca tgggtttatt      180
agaaagagca ctgtagccgg gcatgggtgt tcatgcctgt taagtgagct gaggtaaaat      240
atattaatac atgaaatcta tcattttaac cat'ttttatg tgtacaattc agtgcattaa      300
gtacattcac aatgttatgc aaccaccacc actctccatt tccagaacat cttcatcatc      360
ccagagaatc tg'tttgcagc ctactccct attccancct tcccctagcc ctggcaacct      420
ctaccttctt ggcnc'tgaaa ttggcctatt cnagatgcct catctaaatg ggatcaaatt      480
ggccctttgn ggctggctaa ttcattaaca ggtttcaagg tcatccacgt ggagctggca      540
cagacttatg cagcccaaac canccctacg gatcaatccc cggagaaggg gcaggccagc      600
agatccctgg caccg                                                    615
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<210> 162

<211> 441

<212> DNA

<213> homo sapiens

<220>

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<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (351)..(351)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (374)..(374)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (417)..(417)

<223> n is a, c, g, or t

<400> 162

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tcaaacaccc tgatgcgggc agagttgcag gtcttgcaga ggatgtgccc atccaagggg	180
tagcagcctt ggttatctac ttcagacagg agaccaccgc aatcctcgca tcggtagcag	240
tgaacatgga aatctcgatc caaagccaca atacggacag tctcctcctg gcccggggct	300
ggcataatag gctccttgca cacaagaaca tcgcggggca aatttcttgt nggaagtcct	360
caatgcagtg aatnagcccg ccagcattcc acagtgaatg gggattccca tccaggntgc	420
ggtggcacat cacgcaggtg c	441

<210> 163
 <211> 326
 <212> DNA
 <213> homo sapiens

<400> 163	
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gaaaataagg taattaaaac ttcaaatacag gaaaaaggtt ctcaaaaatc tgactttgcc	180
taccaggtta cagttggtgg ctatcaaatt aggactcagt aattacttgt gtcactgagt	240
gaaagctgct cattgctgcc aagaacctac agagaaggcc aaggggctga cgtacagctg	300
tatggagcag caataagcac ccaga	326

<210> 164
 <211> 231
 <212> DNA
 <213> homo sapiens

<400> 164	
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agaaaaaatg acaatgttga aagttgtatc atcattatta taaactttca tgttcagtat	120
atgtaaactc caaagccaat ttcaaaagat atttttgtga aataccattc tttaaaaaaa	180
aggatattat atataactgt atgaatgtta aatgttttac agtactgatt t	231

<210> 165
 <211> 157
 <212> DNA
 <213> homo sapiens

<400> 165

gagtttctcat tagactgggt tctaggcggg ctgctccact ccataaggaa gcactcgatg	60
tcgtcataga ggctgttggc gctggacagg cagaggctga ggctgctgct atccagggaa	120
gacacaccct cacgctgcgt gccctctagg tgcactc	157

<210> 166
 <211> 411
 <212> DNA
 <213> homo sapiens

<220>
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 <222> (395)..(395)
 <223> n is a, c, g, or t

<400> 166	
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tgagcttaca aatatgagggg tttatatggg ggagagagac cctgggggttg ttagtcaatt	120
aactttacca catataatct catgaccggc ttacaatata ttatcttatg aaaataggaa	180
tttacaaggg ggtgtaatcc acgtttctca tgacctcccc cgtgccaccc agaggcttcg	240
gtgtagcaag tctggtgacc ttgctatagc gcctagataa cggttcagga atgcagctgc	300
agagtattca gggtaagggt cagctgcatt gagttagcgg gggcggagtg gtcctggggc	360
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<210> 167
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 <222> (350)..(350)
 <223> n is a, c, g, or t

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 <222> (513)..(513)
 <223> n is a, c, g, or t

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 <223> n is a, c, g, or t

<220>
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 <222> (538)..(538)
 <223> n is a, c, g, or t

<400> 167
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taaggcaggc tcaaaacaag ccttaaaagc ctttgatatg ttttattaat tagttcatte 120
tttttaaaat acattttataa aagggtatgag aacaagcagt agtggtttctt ttcaaaagac 180
tggattcctt atttttgcaa ttggctgctg caaagcctta actctacatt caatgttcta 240
actattcttt gaacagattt atagactgta cttaaaaaca ctaatcctca gttcgggaat 300
acctaataga tacaggaata ggatatgcag tctggtagaa tgtagatggn actgggactt 360
tgaaaaaaa aaacctgcat tctaattctg gctttttact aacttgggtga atatgatctt 420
tgtctactca attatttgat gccctgggtt tccccatttt aaccaagata gaagtaccat 480
aaagatgaag atggtattgg ccaaatttag ttnaataacn gcctaggtaa ataagatngg 540
ggttg 545

<210> 168
<211> 454
<212> DNA
<213> homo sapiens

<400> 168
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gaggggtgcag gcaggaggct ccgaagtccc aggcaggcgc gcagcctctg gcatctccat 120
ggactccagc tggagagcct gtccgctcag caacacccca ggcagcacca agaataacat 180
gccacaaga acatcatggc caagagacgc acaggcgcat cccgcttcca ggcacctttc 240
ccacctggcc agaagtcctt gctgtcatcc cgacttgcac ggtgggttttg gtaaccagtg 300
ggctgtgcag gagtgaaagt ggggtcactt tccttccttt cccagctgct ggagtcggaa 360
ctgctgcctt tgtttgccg ccttgtttct taaatcagtt ccctcttagg atttattaca 420
ctaaaaaaaa aattagtttt tgaaaagaaa tagg 454

<210> 169
<211> 375
<212> DNA
<213> homo sapiens

<400> 169
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ccatcgtccc tcctccctc ctgctctggg ccagggatgg gctggaagga gagatgggag 120
gtggggagga ggttgccggg ttcacagcag actcgtgtca aatgcggagg taacaggctc 180

cacagggagg gggctcctct caggaggggt gagggcatta ttgcatttgc tggggggaag	240
gacaaccctc tcccctgtat tccctgcgtc aggaaactag gaaggatcatg acccccaaac	300
agaacccaag gccccaggga gacagaggga ccagtttggc agctgatggt ggaaagtgg	360
ggaggcgggg gtggc	375

<210> 170
 <211> 396
 <212> DNA
 <213> homo sapiens

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 <222> (327)..(327)
 <223> n is a, c, g, or t

<220>
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 <222> (349)..(349)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (357)..(357)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (381)..(381)
 <223> n is a, c, g, or t

<400> 170	
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aactcagaca ttggatggag agtagaattt cgacccatgg aggtaagaca catgcatcag	120
caagaactga ctcaaaagta ctctttcgcc agctgttcat cacccttctg atgctgctat	180
gagaaggctc ttatatataa aataaaaatt aagtatgtgc atgggtaggc aagtcagtcc	240
aagttaagga gggttgattt ctgagaatag atgtgggcaa agggcttcca gaccagatg	300
gggaattagg gagatgggct tggggantga catgatctga gggaagggnc tggggtncag	360
gggaggagca tgtttgttgt nagtttggtt cataac	396

<210> 171
 <211> 386
 <212> DNA
 <213> homo sapiens

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<222> (14)..(14)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (376)..(376)
<223> n is a, c, g, or t

<400> 171
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acatcccat cccagaccct ccaccaagg atgatgagat ggaaacagat aagcaggaga 120
agaaagaagt ccctaagtgt ggatttctcc ctgggaatga gaaagtcctg tccctgcttg 180
ccctggttaa gccagaagtc tggactctca aagagaaatg cattctggtg attacatgga 240
tccaacacct gatccccaag attgaagatg gaaatgattt tggggtagca atccagggag 300
aaggtgctgg agagggtgaa tgccgtcaag accaaagtgg aagcttttcc agacaaccat 360
ttccaggtac tttttnagaa cgtggg 386

<210> 172
<211> 413
<212> DNA
<213> homo sapiens

<220>
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<222> (39)..(39)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (162)..(163)
<223> n is a, c, g, or t

<400> 172
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gtgggggtgg agatatggag gagtatgaat tagggcttgg agttggtaaa aacattcctg 120
actatccttc ttaaccacgt ggctgatgtg gggtaggtat gnngggaagg aagtggagta 180
gcctaataaa aaggggttct agttgagctc tgtagataaa tgccttgttt cagtgtggtt 240
ggagacctgg tgtcagataa aagaaactcc atccgcacag acagatgcaa acagctcctc 300
tagttctggc agagctaagt tggagaactc aacattaatc cattttaaaa agtactgtcc 360
ttgaaataga tttgctgtgg gaagaagggc agtgagtgtg ggagaaagga gcc 413

<210> 173

<211> 393
<212> DNA
<213> homo sapiens

<400> 173
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agagtgggaa gaagagctcc tgcagggacc tacattttgc cattcccctc tgccctgggg 120
ctcagagcct tgaagccttt gcttggccct tgcattgttag gatatggcca agaatacagaa 180
actgatgcgt ttttccagca ctacctgtgt gctgcactca tggaagggtg gaagctatac 240
acaggatatcc aacttggtta taagacacca gttcccacag ggctggattt ctcagctgtc 300
tggttaaacca gtggcacttc actgccccag ggtggctggc tccctttctg aatttctgtc 360
tcaatgtgat ataattgccca ccattcagga tgg 393

<210> 174
<211> 281
<212> DNA
<213> homo sapiens

<400> 174
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ggccagggtta ggtagcggc tgaagcagtc tggggagagg caaaaagcaa tggcaggagg 120
gtgggacaga ggaatgtggg ccccaaacta tgggggcagc tgctactcag tgccagctgt 180
tcgtcgccat ggggggaagc gggaccagag ccgccgggtc ttcggctttt tcaagaggac 240
gcataactcc ggattgttat ttgaactgtc ctgactttgg t 281

<210> 175
<211> 493
<212> DNA
<213> homo sapiens

<400> 175
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ctttcacctg gcctgacgaa tctgcagcag ggcttggctc ctgccaattt tccagaaaca 120
tgctgacact ctctaggtta ttactcatg tctggctctc ttcaaagacg ctaaaaggcc 180
agaagggtag ctggccccc aagtacctgg gtcacaagga cataaataaa agaactggcc 240
aaaataagaa aactaatag aaaattgcc aagaaataac actctctcat ctctttgaca 300
tattgtacct tttccccaca ctggctagta tgaaagcagg attagaaaaa aaaaacaaaa 360
cagtaaaaga aaaggcccaa gagagcaaag atacttttga atagagttca gacagagaat 420

agaaaaccac aatagtgcc aagggttttg ttttaacaaag actggtgcct aaggaccacc	480
acagggatgc agc	493

<210> 176
 <211> 286
 <212> DNA
 <213> homo sapiens

<400> 176	
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tctccctttt ttccccgatt ttctgtttg tggtttttaa gtcccccatc cctgctttgc	180
catgagagca gggactccca gtgtccctgg cgccctgcag cttccatagc cattcgggggt	240
gtgcgtgggt gctctgctcc cagctctgtg agctcgagg tcgatg	286

<210> 177
 <211> 724
 <212> DNA
 <213> homo sapiens

<220>
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 <222> (497)..(497)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (587)..(587)
 <223> n is a, c, g, or t

<220>
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 <222> (595)..(595)
 <223> n is a, c, g, or t

<400> 177	
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ccagctcacc cgggtggagg ctgggagctg aaaccgaacc caggcaggag atgggagacg	120
gcggaggtgc aaggcagggc acggcgaca agacgagggc ggccgggagg ggtggattag	180
aggtcactct cgccgtacag cgccgtggag aaggacatgt agtccagagc acctggcacg	240
gagtcggggc cgggtgtagg ggccatccgc gcgatgcagt actcagcctg gtcgggtggc	300
agctcgggc gcacgtcgtc catggtaatg tagttcttgt cccagccag gatcttgaag	360
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aaggcctgga atgtcactac cccagggcgg ttgggggtcca caatgctcat gatgcgggca	480
aattctgctt ctcaactnggg gtcagttgca atatcataac ccaagctgat gaggcaggct	540
ttgagctcct cgggacacag tgtgaccgag ttaatccggt caaagtngtt gaagngaggc	600
cgaacttcat catctgctcc tggctgatgg cgttgcattc ctgggtcaaga tctgggtctcc	660
tactcattga gtgtcctggc aaagctgtta gcaactgtcc cagcccacac gattgtctca	720
tggt	724

<210> 178
 <211> 468
 <212> DNA
 <213> homo sapiens

<400> 178	
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tgctatggac cacgcacata cagccatgct gtctcagaag acttgaaatg ccattgatag	120
tttaaaaact ctacaccgga tggagaatcg aggaagacaa tttaatgttt catctgaatc	180
cagaggtgca tcaaattaaa tgacagctcc acttggcaaa taatagctgt tacttgatgg	240
tatccaagaa gaaatgggtg gtgatggata aattcagaaa tgcttcccca aaggtgggtg	300
gttttttaaaa agtttcaggt cacaaccctt gcagaaaaca ctgatgccca acacactgat	360
tcgcgggtcca ggaaacacgg gtcttccaag ttccaagggg ctgggggttcc caacgatcta	420
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<210> 179
 <211> 513
 <212> DNA
 <213> homo sapiens

<220>
 <221> misc_feature
 <222> (433)..(433)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (453)..(453)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (470)..(470)
 <223> n is a, c, g, or t

<220>

<221> misc_feature
<222> (487)..(487)
<223> n is a, c, g, or t

<400> 179
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aggaccccaa gccttgcttg gagtctatag ctttgctagg actcccatga catcaggata 120
gagattgagg cacgggggtcc tttgggttcc gattaaggaa ctatctactc tgattctgtt 180
gatcttatta gtcacctcag gtcacctcta cttcatctgt ccgataacct tgtgtaaccc 240
cagaatcact gagtgggggtc ctgtgtccag cccgaaacat ctcccagcca gcctgggcta 300
tcacgcgtcc attgtcaata cagaatctct catctgtagc aaaaagccgg gctccacgtt 360
cctgggcaca ttgttgccat catctctgt agcctcacat tacacccac tcctcccaca 420
atgaggggct tcnggggagc cacaatgtgg cntgggtcg gttttgtgan tttttaccag 480
gatttgnaaa cacagtttcc tgcagggaga aac 513

<210> 180
<211> 435
<212> DNA
<213> homo sapiens

<400> 180
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cccaaggcca ggtactgcat tctgaatcag aatctcgag tgtttctgtg aatagatttt 120
tttgtaaata tgacctttaa gatattgtat tatgtaaaat atgtatatac ctttttttgt 180
aggtcacaac aactcatttt tacagagttt gtgaagctaa atatttaaca ttgttgattt 240
cagtaagctg tgtgggtagg ctaccagtgg aagagacatc ctttgacttt tgtggcctgg 300
gggaggggta gtgctccaca gcttttcctt cccaccccc cagcctagat gcctcgctct 360
tttcaatctc ttaatctaaa tgctttttaa gagatattgt ttagatgtag ggcattttaa 420
ttttttaaaa attcc 435

<210> 181
<211> 477
<212> DNA
<213> homo sapiens

<400> 181
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tcaaaaatgt ccacctttac tggagaccaa tcttctaaaa ggtcaaaagc aatcctgctg 120

tttctctctg aaagctaaac tcctttaaat gagaatacga gaatacccag aattttattc	180
ccagcctttg tgtggaaaag gcagtttgca ttcttaggaa acatctaact gttacctaaa	240
ccataaatat ttctatctac tccattcaac ccaattaaag aaaacaaaat gatgagaaaa	300
ataggagccg aacagaaaga aaattcacat cattttctac tattacgaac attcaaattg	360
tgcttcaaat taaataattt taattatcat tctagccaag atcatactaa gtaggatctc	420
ctgacagtcc catatggcag ggatttaacc taaaacgtgg cactgaatgc ttcgcca	477

<210> 182
 <211> 387
 <212> DNA
 <213> homo sapiens

<220>
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 <222> (153)..(153)
 <223> n is a, c, g, or t

<220>
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 <222> (170)..(170)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (266)..(266)
 <223> n is a, c, g, or t

<220>
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 <222> (373)..(373)
 <223> n is a, c, g, or t

<400> 182	
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atggggctgg gagacaaggg agcctccagg tggaagggtg ttttttaata aaaaaataa	120
tggagctaca accaccccct cccccctccc cgnttaaaaa gacacaaan tagacgtctc	180
tgaggtaaac ggggagcctg gggcttaagg gtgtttaaag ggcttcacag gtgccagagc	240
ttagaggtgt cacaggcacc ggggtngctc ctgcatcagt tggtagaaca gcacgtagcc	300
ctcgtggat gccacctggg ttttactga caggggagac acgagagtca ttgtagacat	360
gccaaccagt ctngcaccgg cacaggg	387

<210> 183
 <211> 362
 <212> DNA

<213> homo sapiens

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<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (319)..(319)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (325)..(325)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (357)..(357)

<223> n is a, c, g, or t

<400> 183

nnnaacagga tttttaactc agacagtgt aacatcatga caattctgga atgtctgaag 60

tttgagatag aagattgtct aagaaaagct gagattgtct tagctgtttg tggatatccga 120

attcctctgg aacatgggca tcaggaacca agcgatgcc a ctgctactgg gcagggtttt 180

tatattttac ctaaacagag acaaatgacg ctgacctacc ttaatgaaat ttcagaaaaa 240

ccatctggga atcagcccca tcatgggtcca gattggggag gtatctgggg gatcaatgga 300

aacataccca ggacctacnt tttcnttccc cccaacccca atgtaatggg atggtcnaag 360

gg 362

<210> 184

<211> 493

<212> DNA

<213> homo sapiens

<220>

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<222> (46)..(46)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (164)..(164)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (290)..(290)

<223> n is a, c, g, or t

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<221> misc_feature
<222> (299)..(299)
<223> n is a, c, g, or t

<220>
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<222> (468)..(468)
<223> n is a, c, g, or t

<400> 184
ggaccgagga ctaccctgca ctgccccaca gcaagctgcc catggnccgg ggtcaagcca 60
ccaccacat gtcccaggag tccggccagc ccaccacatc cgctccctag ctccggcgag 120
gccacccctt ctccaagcgg catgcgctcc ctgctgaggc agtncaggca gctggcttcg 180
gcaggccgctc agaccagga ggtggggcgca ggggtcatcc aggatttgag gccctggcca 240
cacctgagtg acaatgatgt atttgacccc accgggtcgc gcctccatgn ccagcgcanc 300
tgaagctcag ctgagagagg ggccggcctc acctgcagcc ccttcagaaa cgtgtctcca 360
ttcgagcctg ggggaaagcc cgtgccacac agcagccaca aactcagcca cagtgtcgtc 420
caggggtgaag atcacggcat tggggcccg cgtcaaagtg tacgccanct tgggtgtcccc 480
gtggtgggcg ttt 493

<210> 185
<211> 451
<212> DNA
<213> homo sapiens

<400> 185
ttttaatta aacttccttt aatgaaataa aaaacaaatg gtgcattgca taatatttgt 60
ggtcacagta taaaacaata caattagttc atataacatt ggatatggac aaaaatacac 120
aagatccttt ctttgtctac ggaaaattct gcagatcctt atgtgccaca cttaaaaaga 180
aagtcaacgt tttctcttct agggatctgc acacatattt atcactgaga atttggtcaa 240
acagtggagg agaacttacc caaatcccag ttcccttctt cctctgttgt catcggtgaa 300
gctaaaaaaaa agttttctga aagtagcaag ttgtgtagta ttgcttatta ttctgccaa 360
aaaggctcag tctttggctc acagatgtca gtgacaaaat catggctgca ggagctctgc 420
aaagcaagaa gcaagggcca ccggggaaaa c 451

<210> 186
<211> 357
<212> DNA

<213> homo sapiens

<220>

<221> misc_feature

<222> (133)..(134)

<223> n is a, c, g, or t

<400> 186

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ccagctggca tcagactgtg tctggcctgc tgtcgccatc cctgaggggt gcaggacaga 120

gccccataga ggnnagaggc ctccctggga ccagaggagg atgctgtgca ccaggcccat 180

ccccagcact cgaggcctag gaggagaggt gggctctggc agcgggtgtg aggtggcagt 240

gagaagccag gccctcaggt gcagctcagg cctctgccgc tggggcctca tagttgagca 300

cgtagtagtc gtggacgtac atgaggacgg ctattggctg tccgatgatg agcgaca 357

<210> 187

<211> 447

<212> DNA

<213> homo sapiens

<400> 187

tgcggccgcg atggtatctc ccgagggctg cttggaccct ggtgggctga gtgctccgag 60

gaggggtgga ctccaccttg gacagtggga tgtggtgttc cacatgtgcc tgtttccacg 120

ccagcacctt gacttggcag catggagcca aggtctgtcc ccgcccagga gggcgccttc 180

ctcgggggta gggggacggc ccaactctgcc ccagggagtc ctttttgatg ggaagtgcag 240

tcagcagcgt ggaggtgtct gggccacctt cagaaggtgg atgtggtggc cgagaccccg 300

tccacggagg gtgatggcct ttcccttctg caggtgcggg caggtgggcc tgggaccggt 360

gctggggcct ctcttgctg tgactgcgtt ccagcggcca gttcactacg cagtatctct 420

ggggcctggg accagccacg tgccgag 447

<210> 188

<211> 370

<212> DNA

<213> homo sapiens

<220>

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<222> (199)..(200)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (243)..(243)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (270)..(270)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (314)..(314)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (361)..(361)

<223> n is a, c, g, or t

<400> 188

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ggcagacgga gacctggggg gaggcagga tacagtcca ccattataa aaatcaaagg 120

ctttataaa aaatgctata aattggtatc aaaagaaaac ccaagggagg ctggaggagg 180

aagcagagag ggagagggnn ggaggagagg aagggacaaa accttcaacc actagtgatg 240

aantccaggg aaggaaggt ttggggggan ttcggagggt gatacaaagt gcataaatgt 300

gcctccccag acgntcctca gaggtggagg ggacagaggc ttcagcctgg gggcatgggt 360

ngggctccag 370

<210> 189

<211> 453

<212> DNA

<213> homo sapiens

<220>

<221> misc_feature

<222> (2)..(2)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (252)..(252)

<223> n is a, c, g, or t

<400> 189

tntattgacc tataacctga ttagaatatg ccagatggga atcaatattg tacagaaagt 60

tgtacagaat tttttacata gaaaacttta catctgtacc atatacattt tgtccatctg 120

aaaaaatttt ctacatccac tgtaatacgc gaatgcttga caatcttgtc ttttaacctat 180

cagagcacia ttcacagtat gaatacattt ccagtaaatac taacctccgc aaaccatgcc 240

agatttgtta tnttaataata ttcaacgtta aattctgtac atagagtaaa atctacatca	300
agccccacca cccaaaagaa aagaaaatga cagcaatctg gattcatttt gcagtgattc	360
aagttttggt ccataaggat cattctattt taatggctca tctttaaaag tcctaagaga	420
aatatgtgac aggtagttac tggcagtagg gga	453

<210> 190
 <211> 334
 <212> DNA
 <213> homo sapiens

<400> 190	
taaaaaacca gaccttttaa tcaggaatgt ggaattgaaa atgttcccca agtccccttt	60
ccacagtgtt tggccagccc taacggaggg gccgggacgc tggtagacca gggcctggtg	120
agtaaacggc cctgcctgcc ccagacaggg agcatctggt ggtggccagc ctctgcagc	180
aaaggggtgc cgggagggcc aggggacatc atggggactt cctgggcttt ctgtaggagg	240
ccagtgtctt ggtcacatct gaggtcttcc tgacaagggg acacagctgt gacacgggtga	300
gtatcctggg ctgataggaa acccagctgg gatg	334

<210> 191
 <211> 426
 <212> DNA
 <213> homo sapiens

<400> 191	
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tagcagcttg atgtgtcatt ctccccagca ggcaggcggg tggaatggct tgggttgtaa	120
actccctccc ccagccttcc tgtcccttgg aggggcagtt cagctgggtt ctggttcagg	180
gtcaggcagg cagttaaggc ttggctggtg cgagaaggct gggtgctgtg tcttcagagc	240
tcattcctcc actctggctc cacttgacaga gacaggcccc cttcacctc ccgctcctgg	300
gggaggtagt catggctgtg gggccctgag gtagaggggc tgagcttgct cagaccttg	360
cagtaaattc tgtccctgtt gcaggtccag tttggcaagg aagggaacc cgttataacc	420
cccgtt	426

<210> 192
 <211> 420
 <212> DNA
 <213> homo sapiens

<400> 192

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atcatggctc attgcagcct tgaacttctg ggctcaagtg atcctccac ctcaacctcc	120
tgagtagctg ggaatacagg catgcaccac catgcctaatt ttttagaga tggggctctg	180
ctatattgcc cagtctggcc tcaagtaatc ctctgcctc agctttctga attgctggga	240
ttatcggcat gagccactgt gccagctaa gctgtgactt ttgaggcaac cccttcctt	300
ccacagagtt tagtttctc atttgtaaaa tgaggacaaa cctagatatt tttgggaagt	360
ttcttcagtt tctaattgcc tatgattcag atcacatctg ttggcagagc tttcctaaaa	420

<210> 193
 <211> 319
 <212> DNA
 <213> homo sapiens

<220>
 <221> misc_feature
 <222> (270)..(270)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (309)..(309)
 <223> n is a, c, g, or t

<400> 193	
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aagacaattt ttttgcaaatt gctgattcaa aacgtaccaa tccccatcta tcatgcctat	120
gccaatatac tctgtcacaa aaaagtttgc ttctcattgt cacatagcta tggggactgg	180
tggccttcta aaatcactgt ccagctgctg caagtgtgag gccagcaacc cacggcaggg	240
atgcaggagg gaagccatgg ctaagctgtn ggcctggaca aagggcacag atggggggtg	300
aaaggtgang aagcggtaa	319

<210> 194
 <211> 757
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (564)..(564)
 <223> n is a, c, g, or t

<400> 194	
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agggagtgag agagaaagac atggtaacca tgttctagca gccaaacata ggagaataat      120
ttggcacaaac ttgatgggtt tttttctttc tttgcaaaag gacaatctat atgctaccac      180
taaaatgtat cttcctccaa aagataccat ttgattttcg aaaacataac acatggttag      240
tcctctactt catggctgga ggaggtatac aggataacaa aaaaaaaaaa atagaaaaaa      300
ataagaaagt ggttcctttt atcgaggaag accacagggt gctgtagggc agcacatgtg      360
ctgggcacca ggcagtcagt gcaccaggaa gaagaagcac accaccgaga tggccatgct      420
ggtgagaagc ttcagggggg aatgaacgtt cccgagggtt tgaaagggtc ttatctcggt      480
gtccttcgga gttgcctgct gactgtttcc aggcgcacat tccacatcca gatcataggc      540
cagttcctgc aggaagcggc tgantttctc actttttatca ttccatcacc agagcctcca      600
atgcactcat cttcatcatc acggcagttc ccacttttca acccttcctc atccaggttt      660
tatccagaac tctacctttg ggcatagaca tggttctcag gagctgggta atggtgctca      720
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<210> 195
<211> 440
<212> DNA
<213> Homo sapiens

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<220>
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<222> (105)..(105)
<223> n is a, c, g, or t

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<220>
<221> misc_feature
<222> (276)..(276)
<223> n is a, c, g, or t

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<220>
<221> misc_feature
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<223> n is a, c, g, or t

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<220>
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<223> n is a, c, g, or t

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<222> (330)..(330)
<223> n is a, c, g, or t

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<220>
<221> misc_feature

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<222> (365)..(365)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (370)..(370)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (376)..(376)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (385)..(385)
<223> n is a, c, g, or t

<400> 195
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gggtgtttct aaaaagccaa ttagttttaa gagggttgtt gtggnggggg gggaaggggg 120
ttagtttaat gttttgattt tttatgtgtg gggataattg gggataattt ggggggaggg 180
tatgtgaagg gtgtttaaag ccaatcgatt ttgtacatgt ttgaagatgc tgctgtgctt 240
cctcagcccg atggaggggg ccgaggagag tagccngttt cggggangcg gggcacgggg 300
gactgggtca ggagaanccc cagggggacn gtgggaaccg agagattttc cgggatggga 360
acctngattn gaaacngtcc gtcgnccagc gaaggaggct gcaggatggt ggcgccgggg 420
ctgcagactt gcggcagttt 440

<210> 196
<211> 406
<212> PRT
<213> homo sapiens

<400> 196

Met Ser Gly Ala Pro Thr Ala Gly Ala Ala Leu Met Leu Cys Ala Ala
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Thr Ala Val Leu Leu Ser Ala Gln Gly Gly Pro Val Gln Ser Lys Ser
20 25 30

Pro Arg Phe Ala Ser Trp Asp Glu Met Asn Val Leu Ala His Gly Leu
35 40 45

Leu Gln Leu Gly Gln Gly Leu Arg Glu His Ala Glu Arg Thr Arg Ser
50 55 60

Gln Leu Ser Ala Leu Glu Arg Arg Leu Ser Ala Cys Gly Ser Ala Cys
65 70 75 80

Gln Gly Thr Glu Gly Ser Thr Asp Leu Pro Leu Ala Pro Glu Ser Arg
85 90 95

Val Asp Pro Glu Val Leu His Ser Leu Gln Thr Gln Leu Lys Ala Gln
100 105 110

Asn Ser Arg Ile Gln Gln Leu Phe His Lys Val Ala Gln Gln Gln Arg
115 120 125

His Leu Glu Lys Gln His Leu Arg Ile Gln His Leu Gln Ser Gln Phe
130 135 140

Gly Leu Leu Asp His Lys His Leu Asp His Glu Val Ala Lys Pro Ala
145 150 155 160

Arg Arg Lys Arg Leu Pro Glu Met Ala Gln Pro Val Asp Pro Ala His
165 170 175

Asn Val Ser Arg Leu His Arg Leu Pro Arg Asp Cys Gln Glu Leu Phe
180 185 190

Gln Val Gly Glu Arg Gln Ser Gly Leu Phe Glu Ile Gln Pro Gln Gly
195 200 205

Ser Pro Pro Phe Leu Val Asn Cys Lys Met Thr Ser Asp Gly Gly Trp
210 215 220

Thr Val Ile Gln Arg Arg His Asp Gly Ser Val Asp Phe Asn Arg Pro
225 230 235 240

Trp Glu Ala Tyr Lys Ala Gly Phe Gly Asp Pro His Gly Glu Phe Trp
245 250 255

Leu Gly Leu Glu Lys Val His Ser Ile Thr Gly Asp Arg Asn Ser Arg
260 265 270

Leu Ala Val Gln Leu Arg Asp Trp Asp Gly Asn Ala Glu Leu Leu Gln
275 280 285

Phe Ser Val His Leu Gly Gly Glu Asp Thr Ala Tyr Ser Leu Gln Leu
290 295 300

Thr Ala Pro Val Ala Gly Gln Leu Gly Ala Thr Thr Val Pro Pro Ser
305 310 315 320

Gly Leu Ser Val Pro Phe Ser Thr Trp Asp Gln Asp His Asp Leu Arg
325 330 335

Arg Asp Lys Asn Cys Ala Lys Ser Leu Ser Gly Gly Trp Trp Phe Gly
340 345 350

Thr Cys Ser His Ser Asn Leu Asn Gly Gln Tyr Phe Arg Ser Ile Pro
355 360 365

Gln Gln Arg Gln Lys Leu Lys Lys Gly Ile Phe Trp Lys Thr Trp Arg
370 375 380

Gly Arg Tyr Tyr Pro Leu Gln Ala Thr Thr Met Leu Ile Gln Pro Met
385 390 395 400

Ala Ala Glu Ala Ala Ser
405

<210> 197
<211> 173
<212> PRT
<213> homo sapiens

<400> 197

Met Asp Val Thr Ile Gln His Pro Trp Phe Lys Arg Thr Leu Gly Pro
1 5 10 15

Phe Tyr Pro Ser Arg Leu Phe Asp Gln Phe Phe Gly Glu Gly Leu Phe
20 25 30

Glu Tyr Asp Leu Leu Pro Phe Leu Ser Ser Thr Ile Ser Pro Tyr Tyr
35 40 45

Arg Gln Ser Leu Phe Arg Thr Val Leu Asp Ser Gly Ile Ser Glu Val
50 55 60

Arg Ser Asp Arg Asp Lys Phe Val Ile Phe Leu Asp Val Lys His Phe

65		70		75		80									
Ser	Pro	Glu	Asp	Leu	Thr	Val	Lys	Val	Gln	Asp	Asp	Phe	Val	Glu	Ile
				85					90					95	
His	Gly	Lys	His	Asn	Glu	Arg	Gln	Asp	Asp	His	Gly	Tyr	Ile	Ser	Arg
			100					105					110		
Glu	Phe	His	Arg	Arg	Tyr	Arg	Leu	Pro	Ser	Asn	Val	Asp	Gln	Ser	Ala
		115					120					125			
Leu	Ser	Cys	Ser	Leu	Ser	Ala	Asp	Gly	Met	Leu	Thr	Phe	Cys	Gly	Pro
	130					135					140				
Lys	Ile	Gln	Thr	Gly	Leu	Asp	Ala	Thr	His	Ala	Glu	Arg	Ala	Ile	Pro
145					150					155					160
Val	Ser	Arg	Glu	Glu	Lys	Pro	Thr	Ser	Ala	Pro	Ser	Ser			
			165						170						
<210>	198														
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<213>	homo sapiens														
<400>	198														
Met	Ala	Glu	Lys	Pro	Lys	Leu	His	Tyr	Ser	Asn	Ile	Arg	Gly	Arg	Met
1				5					10					15	
Glu	Ser	Ile	Arg	Trp	Leu	Leu	Ala	Ala	Ala	Gly	Val	Glu	Phe	Glu	Glu
			20					25					30		
Lys	Phe	Ile	Lys	Ser	Ala	Glu	Asp	Leu	Asp	Lys	Leu	Arg	Asn	Asp	Gly
		35					40					45			
Tyr	Leu	Met	Phe	Gln	Gln	Val	Pro	Met	Val	Glu	Ile	Asp	Gly	Met	Lys
	50					55					60				
Leu	Val	Gln	Thr	Arg	Ala	Ile	Leu	Asn	Tyr	Ile	Ala	Ser	Lys	Tyr	Asn
65					70					75					80
Leu	Tyr	Gly	Lys	Asp	Ile	Lys	Glu	Lys	Ala	Leu	Ile	Asp	Met	Tyr	Ile
			85						90					95	

Glu Gly Ile Ala Asp Leu Gly Glu Met Ile Leu Leu Leu Pro Phe Ser
100 105 110

Gln Pro Glu Glu Gln Asp Ala Lys Leu Ala Leu Ile Gln Glu Lys Thr
115 120 125

Lys Asn Arg Tyr Phe Pro Ala Phe Glu Lys Val Leu Lys Ser His Gly
130 135 140

Gln Asp Tyr Leu Val Gly Asn Lys Leu Ser Arg Ala Asp Ile His Leu
145 150 155 160

Val Glu Leu Leu Tyr Tyr Val Glu Glu Leu Asp Ser Ser Leu Ile Ser
165 170 175

Ser Phe Pro Leu Leu Lys Ala Leu Lys Thr Arg Ile Ser Asn Leu Pro
180 185 190

Thr Val Lys Lys Phe Leu Gln Pro Gly Ser Pro Arg Lys Pro Pro Met
195 200 205

Asp Glu Lys Ser Leu Glu Glu Ser Arg Lys Ile Phe Arg Phe
210 215 220

<210> 199
<211> 1744
<212> PRT
<213> homo sapiens

<400> 199

Met Arg Leu Leu Trp Gly Leu Ile Trp Ala Ser Ser Phe Phe Thr Leu
1 5 10 15

Ser Leu Gln Lys Pro Arg Leu Leu Leu Phe Ser Pro Ser Val Val His
20 25 30

Leu Gly Val Pro Leu Ser Val Gly Val Gln Leu Gln Asp Val Pro Arg
35 40 45

Gly Gln Val Val Lys Gly Ser Val Phe Leu Arg Asn Pro Ser Arg Asn
50 55 60

Asn Val Pro Cys Ser Pro Lys Val Asp Phe Thr Leu Ser Ser Glu Arg

65				70				75				80			
Asp	Phe	Ala	Leu	Leu 85	Ser	Leu	Gln	Val	Pro 90	Leu	Lys	Asp	Ala	Lys 95	Ser
Cys	Gly	Leu	His 100	Gln	Leu	Leu	Arg	Gly 105	Pro	Glu	Val	Gln	Leu 110	Val	Ala
His	Ser	Pro 115	Trp	Leu	Lys	Asp	Ser 120	Leu	Ser	Arg	Thr	Thr 125	Asn	Ile	Gln
Gly	Ile 130	Asn	Leu	Leu	Phe	Ser 135	Ser	Arg	Arg	Gly	His 140	Leu	Phe	Leu	Gln
Thr 145	Asp	Gln	Pro	Ile	Tyr 150	Asn	Pro	Gly	Gln	Arg 155	Val	Arg	Tyr	Arg	Val 160
Phe	Ala	Leu	Asp	Gln 165	Lys	Met	Arg	Pro	Ser 170	Thr	Asp	Thr	Ile	Thr 175	Val
Met	Val	Glu 180	Asn	Ser	His	Gly	Leu	Arg 185	Val	Arg	Lys	Lys	Glu 190	Val	Tyr
Met	Pro	Ser 195	Ser	Ile	Phe	Gln	Asp 200	Asp	Phe	Val	Ile	Pro 205	Asp	Ile	Ser
Glu 210	Pro	Gly	Thr	Trp	Lys	Ile 215	Ser	Ala	Arg	Phe	Ser 220	Asp	Gly	Leu	Glu
Ser 225	Asn	Ser	Ser	Thr	Gln 230	Phe	Glu	Val	Lys	Lys 235	Tyr	Val	Leu	Pro	Asn 240
Phe	Glu	Val	Lys	Ile 245	Thr	Pro	Gly	Lys	Pro 250	Tyr	Ile	Leu	Thr	Val 255	Pro
Gly	His	Leu	Asp 260	Glu	Met	Gln	Leu	Asp 265	Ile	Gln	Ala	Arg	Tyr 270	Ile	Tyr
Gly	Lys	Pro 275	Val	Gln	Gly	Val	Ala 280	Tyr	Val	Arg	Phe	Gly 285	Leu	Leu	Asp
Glu	Asp 290	Gly	Lys	Lys	Thr	Phe 295	Phe	Arg	Gly	Leu	Glu 300	Ser	Gln	Thr	Lys

Leu Val Asn Gly Gln Ser His Ile Ser Leu Ser Lys Ala Glu Phe Gln
305 310 315 320

Asp Ala Leu Glu Lys Leu Asn Met Gly Ile Thr Asp Leu Gln Gly Leu
325 330 335

Arg Leu Tyr Val Ala Ala Ala Ile Ile Glu Ser Pro Gly Gly Glu Met
340 345 350

Glu Glu Ala Glu Leu Thr Ser Trp Tyr Phe Val Ser Ser Pro Phe Ser
355 360 365

Leu Asp Leu Ser Lys Thr Lys Arg His Leu Val Pro Gly Ala Pro Phe
370 375 380

Leu Leu Gln Ala Leu Val Arg Glu Met Ser Gly Ser Pro Ala Ser Gly
385 390 395 400

Ile Pro Val Lys Val Ser Ala Thr Val Ser Ser Pro Gly Ser Val Pro
405 410 415

Glu Val Gln Asp Ile Gln Gln Asn Thr Asp Gly Ser Gly Gln Val Ser
420 425 430

Ile Pro Ile Ile Ile Pro Gln Thr Ile Ser Glu Leu Gln Leu Ser Val
435 440 445

Ser Ala Gly Ser Pro His Pro Ala Ile Ala Arg Leu Thr Val Ala Ala
450 455 460

Pro Pro Ser Gly Gly Pro Gly Phe Leu Ser Ile Glu Arg Pro Asp Ser
465 470 475 480

Arg Pro Pro Arg Val Gly Asp Thr Leu Asn Leu Asn Leu Arg Ala Val
485 490 495

Gly Ser Gly Ala Thr Phe Ser His Tyr Tyr Tyr Met Ile Leu Ser Arg
500 505 510

Gly Gln Ile Val Phe Met Asn Arg Glu Pro Lys Arg Thr Leu Thr Ser
515 520 525

Val Ser Val Phe Val Asp His His Leu Ala Pro Ser Phe Tyr Phe Val
530 535 540

Ala Phe Tyr Tyr His Gly Asp His Pro Val Ala Asn Ser Leu Arg Val
545 550 555 560

Asp Val Gln Ala Gly Ala Cys Glu Gly Lys Leu Glu Leu Ser Val Asp
565 570 575

Gly Ala Lys Gln Tyr Arg Asn Gly Glu Ser Val Lys Leu His Leu Glu
580 585 590

Thr Asp Ser Leu Ala Leu Val Ala Leu Gly Ala Leu Asp Thr Ala Leu
595 600 605

Tyr Ala Ala Gly Ser Lys Ser His Lys Pro Leu Asn Met Gly Lys Val
610 615 620

Phe Glu Ala Met Asn Ser Tyr Asp Leu Gly Cys Gly Pro Gly Gly Gly
625 630 635 640

Asp Ser Ala Leu Gln Val Phe Gln Ala Ala Gly Leu Ala Phe Ser Asp
645 650 655

Gly Asp Gln Trp Thr Leu Ser Arg Lys Arg Leu Ser Cys Pro Lys Glu
660 665 670

Lys Thr Thr Arg Lys Lys Arg Asn Val Asn Phe Gln Lys Ala Ile Asn
675 680 685

Glu Lys Leu Gly Gln Tyr Ala Ser Pro Thr Ala Lys Arg Cys Cys Gln
690 695 700

Asp Gly Val Thr Arg Leu Pro Met Met Arg Ser Cys Glu Gln Arg Ala
705 710 715 720

Ala Arg Val Gln Gln Pro Asp Cys Arg Glu Pro Phe Leu Ser Cys Cys
725 730 735

Gln Phe Ala Glu Ser Leu Arg Lys Lys Ser Arg Asp Lys Gly Gln Ala
740 745 750

Gly Leu Gln Arg Ala Leu Glu Ile Leu Gln Glu Glu Asp Leu Ile Asp
755 760 765

Glu Asp Asp Ile Pro Val Arg Ser Phe Phe Pro Glu Asn Trp Leu Trp
770 775 780

Arg Val Glu Thr Val Asp Arg Phe Gln Ile Leu Thr Leu Trp Leu Pro
785 790 795 800

Asp Ser Leu Thr Thr Trp Glu Ile His Gly Leu Ser Leu Ser Lys Thr
805 810 815

Lys Gly Leu Cys Val Ala Thr Pro Val Gln Leu Arg Val Phe Arg Glu
820 825 830

Phe His Leu His Leu Arg Leu Pro Met Ser Val Arg Arg Phe Glu Gln
835 840 845

Leu Glu Leu Arg Pro Val Leu Tyr Asn Tyr Leu Asp Lys Asn Leu Thr
850 855 860

Val Ser Val His Val Ser Pro Val Glu Gly Leu Cys Leu Ala Gly Gly
865 870 875 880

Gly Gly Leu Ala Gln Gln Val Leu Val Pro Ala Gly Ser Ala Arg Pro
885 890 895

Val Ala Phe Ser Val Val Pro Thr Ala Ala Thr Ala Val Ser Leu Lys
900 905 910

Val Val Ala Arg Gly Ser Phe Glu Phe Pro Val Gly Asp Ala Val Ser
915 920 925

Lys Val Leu Gln Ile Glu Lys Glu Gly Ala Ile His Arg Glu Glu Leu
930 935 940

Val Tyr Glu Leu Asn Pro Leu Asp His Arg Gly Arg Thr Leu Glu Ile
945 950 955 960

Pro Gly Asn Ser Asp Pro Asn Met Ile Pro Asp Gly Asp Phe Asn Ser
965 970 975

Tyr Val Arg Val Thr Ala Ser Asp Pro Leu Asp Thr Leu Gly Ser Glu

980

985

990

Gly Ala Leu Ser Pro Gly Gly Val Ala Ser Leu Leu Arg Leu Pro Arg
 995 1000 1005

Gly Cys Gly Glu Gln Thr Met Ile Tyr Leu Ala Pro Thr Leu Ala
 1010 1015 1020

Ala Ser Arg Tyr Leu Asp Lys Thr Glu Gln Trp Ser Thr Leu Pro
 1025 1030 1035

Pro Glu Thr Lys Asp His Ala Val Asp Leu Ile Gln Lys Gly Tyr
 1040 1045 1050

Met Arg Ile Gln Gln Phe Arg Lys Ala Asp Gly Ser Tyr Ala Ala
 1055 1060 1065

Trp Leu Ser Arg Gly Ser Ser Thr Trp Leu Thr Ala Phe Val Leu
 1070 1075 1080

Lys Val Leu Ser Leu Ala Gln Glu Gln Val Gly Gly Ser Pro Glu
 1085 1090 1095

Lys Leu Gln Glu Thr Ser Asn Trp Leu Leu Ser Gln Gln Gln Ala
 1100 1105 1110

Asp Gly Ser Phe Gln Asp Leu Ser Pro Val Ile His Arg Ser Met
 1115 1120 1125

Gln Gly Gly Leu Val Gly Asn Asp Glu Thr Val Ala Leu Thr Ala
 1130 1135 1140

Phe Val Thr Ile Ala Leu His His Gly Leu Ala Val Phe Gln Asp
 1145 1150 1155

Glu Gly Ala Glu Pro Leu Lys Gln Arg Val Glu Ala Ser Ile Ser
 1160 1165 1170

Lys Ala Ser Ser Phe Leu Gly Glu Lys Ala Ser Ala Gly Leu Leu
 1175 1180 1185

Gly Ala His Ala Ala Ala Ile Thr Ala Tyr Ala Leu Thr Leu Thr
 1190 1195 1200

Lys Ala Pro Ala Asp Leu Arg Gly Val Ala His Asn Asn Leu Met
1205 1210 1215

Ala Met Ala Gln Glu Thr Gly Asp Asn Leu Tyr Trp Gly Ser Val
1220 1225 1230

Thr Gly Ser Gln Ser Asn Ala Val Ser Pro Thr Pro Ala Pro Arg
1235 1240 1245

Asn Pro Ser Asp Pro Met Pro Gln Ala Pro Ala Leu Trp Ile Glu
1250 1255 1260

Thr Thr Ala Tyr Ala Leu Leu His Leu Leu Leu His Glu Gly Lys
1265 1270 1275

Ala Glu Met Ala Asp Gln Ala Ala Ala Trp Leu Thr Arg Gln Gly
1280 1285 1290

Ser Phe Gln Gly Gly Phe Arg Ser Thr Gln Asp Thr Val Ile Ala
1295 1300 1305

Leu Asp Ala Leu Ser Ala Tyr Trp Ile Ala Ser His Thr Thr Glu
1310 1315 1320

Glu Arg Gly Leu Asn Val Thr Leu Ser Ser Thr Gly Arg Asn Gly
1325 1330 1335

Phe Lys Ser His Ala Leu Gln Leu Asn Asn Arg Gln Ile Arg Gly
1340 1345 1350

Leu Glu Glu Glu Leu Gln Phe Ser Leu Gly Ser Lys Ile Asn Val
1355 1360 1365

Lys Val Gly Gly Asn Ser Lys Gly Thr Leu Lys Val Leu Arg Thr
1370 1375 1380

Tyr Asn Val Leu Asp Met Lys Asn Thr Thr Cys Gln Asp Leu Gln
1385 1390 1395

Ile Glu Val Thr Val Lys Gly His Val Glu Tyr Thr Met Glu Ala
1400 1405 1410

Asn Glu Asp Tyr Glu Asp Tyr Glu Tyr Asp Glu Leu Pro Ala Lys
1415 1420 1425

Asp Asp Pro Asp Ala Pro Leu Gln Pro Val Thr Pro Leu Gln Leu
1430 1435 1440

Phe Glu Gly Arg Arg Asn Arg Arg Arg Arg Glu Ala Pro Lys Val
1445 1450 1455

Val Glu Glu Gln Glu Ser Arg Val His Tyr Thr Val Cys Ile Trp
1460 1465 1470

Arg Asn Gly Lys Val Gly Leu Ser Gly Met Ala Ile Ala Asp Val
1475 1480 1485

Thr Leu Leu Ser Gly Phe His Ala Leu Arg Ala Asp Leu Glu Lys
1490 1495 1500

Leu Thr Ser Leu Ser Asp Arg Tyr Val Ser His Phe Glu Thr Glu
1505 1510 1515

Gly Pro His Val Leu Leu Tyr Phe Asp Ser Val Pro Thr Ser Arg
1520 1525 1530

Glu Cys Val Gly Phe Glu Ala Val Gln Glu Val Pro Val Gly Leu
1535 1540 1545

Val Gln Pro Ala Ser Ala Thr Leu Tyr Asp Tyr Tyr Asn Pro Glu
1550 1555 1560

Arg Arg Cys Ser Val Phe Tyr Gly Ala Pro Ser Lys Ser Arg Leu
1565 1570 1575

Leu Ala Thr Leu Cys Ser Ala Glu Val Cys Gln Cys Ala Glu Gly
1580 1585 1590

Lys Cys Pro Arg Gln Arg Arg Ala Leu Glu Arg Gly Leu Gln Asp
1595 1600 1605

Glu Asp Gly Tyr Arg Met Lys Phe Ala Cys Tyr Tyr Pro Arg Val
1610 1615 1620

Glu Tyr Gly Phe Gln Val Lys Val Leu Arg Glu Asp Ser Arg Ala
1625 1630 1635

Ala Phe Arg Leu Phe Glu Thr Lys Ile Thr Gln Val Leu His Phe
1640 1645 1650

Thr Lys Asp Val Lys Ala Ala Ala Asn Gln Met Arg Asn Phe Leu
1655 1660 1665

Val Arg Ala Ser Cys Arg Leu Arg Leu Glu Pro Gly Lys Glu Tyr
1670 1675 1680

Leu Ile Met Gly Leu Asp Gly Ala Thr Tyr Asp Leu Glu Gly His
1685 1690 1695

Pro Gln Tyr Leu Leu Asp Ser Asn Ser Trp Ile Glu Glu Met Pro
1700 1705 1710

Ser Glu Arg Leu Cys Arg Ser Thr Arg Gln Arg Ala Ala Cys Ala
1715 1720 1725

Gln Leu Asn Asp Phe Leu Gln Glu Tyr Gly Thr Gln Gly Cys Gln
1730 1735 1740

Val

<210> 200
<211> 1744
<212> PRT
<213> homo sapiens

<400> 200

Met Arg Leu Leu Trp Gly Leu Ile Trp Ala Ser Ser Phe Phe Thr Leu
1 5 10 15

Ser Leu Gln Lys Pro Arg Leu Leu Leu Phe Ser Pro Ser Val Val His
20 25 30

Leu Gly Val Pro Leu Ser Val Gly Val Gln Leu Gln Asp Val Pro Arg
35 40 45

Gly Gln Val Val Lys Gly Ser Val Phe Leu Arg Asn Pro Ser Arg Asn
50 55 60

Asn Val Pro Cys Ser Pro Lys Val Asp Phe Thr Leu Ser Ser Glu Arg
65 70 75 80

Asp Phe Ala Leu Leu Ser Leu Gln Val Pro Leu Lys Asp Ala Lys Ser
85 90 95

Cys Gly Leu His Gln Leu Leu Arg Gly Pro Glu Val Gln Leu Val Ala
100 105 110

His Ser Pro Trp Leu Lys Asp Ser Leu Ser Arg Thr Thr Asn Ile Gln
115 120 125

Gly Ile Asn Leu Leu Phe Ser Ser Arg Arg Gly His Leu Phe Leu Gln
130 135 140

Thr Asp Gln Pro Ile Tyr Asn Pro Gly Gln Arg Val Arg Tyr Arg Val
145 150 155 160

Phe Ala Leu Asp Gln Lys Met Arg Pro Ser Thr Asp Thr Ile Thr Val
165 170 175

Met Val Glu Asn Ser His Gly Leu Arg Val Arg Lys Lys Glu Val Tyr
180 185 190

Met Pro Ser Ser Ile Phe Gln Asp Asp Phe Val Ile Pro Asp Ile Ser
195 200 205

Glu Pro Gly Thr Trp Lys Ile Ser Ala Arg Phe Ser Asp Gly Leu Glu
210 215 220

Ser Asn Ser Ser Thr Gln Phe Glu Val Lys Lys Tyr Val Leu Pro Asn
225 230 235 240

Phe Glu Val Lys Ile Thr Pro Gly Lys Pro Tyr Ile Leu Thr Val Pro
245 250 255

Gly His Leu Asp Glu Met Gln Leu Asp Ile Gln Ala Arg Tyr Ile Tyr
260 265 270

Gly Lys Pro Val Gln Gly Val Ala Tyr Val Arg Phe Gly Leu Leu Asp
275 280 285

Glu Asp Gly Lys Lys Thr Phe Phe Arg Gly Leu Glu Ser Gln Thr Lys
290 295 300

Leu Val Asn Gly Gln Ser His Ile Ser Leu Ser Lys Ala Glu Phe Gln
305 310 315 320

Asp Ala Leu Glu Lys Leu Asn Met Gly Ile Thr Asp Leu Gln Gly Leu
325 330 335

Arg Leu Tyr Val Ala Ala Ala Ile Ile Glu Tyr Pro Gly Gly Glu Met
340 345 350

Glu Glu Ala Glu Leu Thr Ser Trp Tyr Phe Val Ser Ser Pro Phe Ser
355 360 365

Leu Asp Leu Ser Lys Thr Lys Arg His Leu Val Pro Gly Ala Pro Phe
370 375 380

Leu Leu Gln Ala Leu Val Arg Glu Met Ser Gly Ser Pro Ala Ser Gly
385 390 395 400

Ile Pro Val Lys Val Ser Ala Thr Val Ser Ser Pro Gly Ser Val Pro
405 410 415

Glu Val Gln Asp Ile Gln Gln Asn Thr Asp Gly Ser Gly Gln Val Ser
420 425 430

Ile Pro Ile Ile Ile Pro Gln Thr Ile Ser Glu Leu Gln Leu Ser Val
435 440 445

Ser Ala Gly Ser Pro His Pro Ala Ile Ala Arg Leu Thr Val Ala Ala
450 455 460

Pro Pro Ser Gly Gly Pro Gly Phe Leu Ser Ile Glu Arg Pro Asp Ser
465 470 475 480

Arg Pro Pro Arg Val Gly Asp Thr Leu Asn Leu Asn Leu Arg Ala Val
485 490 495

Gly Ser Gly Ala Thr Phe Ser His Tyr Tyr Tyr Met Ile Leu Ser Arg
500 505 510

Gly Gln Ile Val Phe Met Asn Arg Glu Pro Lys Arg Thr Leu Thr Ser
515 520 525

Val Ser Val Phe Val Asp His His Leu Ala Pro Ser Phe Tyr Phe Val
530 535 540

Ala Phe Tyr Tyr His Gly Asp His Pro Val Ala Asn Ser Leu Arg Val
545 550 555 560

Asp Val Gln Ala Gly Ala Cys Glu Gly Lys Leu Glu Leu Ser Val Asp
565 570 575

Gly Ala Lys Gln Tyr Arg Asn Gly Glu Ser Val Lys Leu His Leu Glu
580 585 590

Thr Asp Ser Leu Ala Leu Val Ala Leu Gly Ala Leu Asp Thr Ala Leu
595 600 605

Tyr Ala Ala Gly Ser Lys Ser His Lys Pro Leu Asn Met Gly Lys Val
610 615 620

Phe Glu Ala Met Asn Ser Tyr Asp Leu Gly Cys Gly Pro Gly Gly Gly
625 630 635 640

Asp Ser Ala Leu Gln Val Phe Gln Ala Ala Gly Leu Ala Phe Ser Asp
645 650 655

Gly Asp Gln Trp Thr Leu Ser Arg Lys Arg Leu Ser Cys Pro Lys Glu
660 665 670

Lys Thr Thr Arg Lys Lys Arg Asn Val Asn Phe Gln Lys Ala Ile Asn
675 680 685

Glu Lys Leu Gly Gln Tyr Ala Ser Pro Thr Ala Lys Arg Cys Cys Gln
690 695 700

Asp Gly Val Thr Arg Leu Pro Met Met Arg Ser Cys Glu Gln Arg Ala
705 710 715 720

Ala Arg Val Gln Gln Pro Asp Cys Arg Glu Pro Phe Leu Ser Cys Cys
725 730 735

Gln Phe Ala Glu Ser Leu Arg Lys Lys Ser Arg Asp Lys Gly Gln Ala

740

745

750

Gly Leu Gln Arg Ala Leu Glu Ile Leu Gln Glu Glu Asp Leu Ile Asp
 755 760 765

Glu Asp Asp Ile Pro Val Arg Ser Phe Phe Pro Glu Asn Trp Leu Trp
 770 775 780

Arg Val Glu Thr Val Asp Arg Phe Gln Ile Leu Thr Leu Trp Leu Pro
 785 790 795 800

Asp Ser Leu Thr Thr Trp Glu Ile His Gly Leu Ser Leu Ser Lys Thr
 805 810 815

Lys Gly Leu Cys Val Ala Thr Pro Val Gln Leu Arg Val Phe Arg Glu
 820 825 830

Phe His Leu His Leu Arg Leu Pro Met Ser Val Arg Arg Phe Glu Gln
 835 840 845

Leu Glu Leu Arg Pro Val Leu Tyr Asn Tyr Leu Asp Lys Asn Leu Thr
 850 855 860

Val Ser Val His Val Ser Pro Val Glu Gly Leu Cys Leu Ala Gly Gly
 865 870 875 880

Gly Gly Leu Ala Gln Gln Val Leu Val Pro Ala Gly Ser Ala Arg Pro
 885 890 895

Val Ala Phe Ser Val Val Pro Thr Ala Ala Ala Ala Val Ser Leu Lys
 900 905 910

Val Val Ala Arg Gly Ser Phe Glu Phe Pro Val Gly Asp Ala Val Ser
 915 920 925

Lys Val Leu Gln Ile Glu Lys Glu Gly Ala Ile His Arg Glu Glu Leu
 930 935 940

Val Tyr Glu Leu Asn Pro Leu Asp His Arg Gly Arg Thr Leu Glu Ile
 945 950 955 960

Pro Gly Asn Ser Asp Pro Asn Met Ile Pro Asp Gly Asp Phe Asn Ser
 965 970 975

Tyr Val Arg Val Thr Ala Ser Asp Pro Leu Asp Thr Leu Gly Ser Glu
980 985 990

Gly Ala Leu Ser Pro Gly Gly Val Ala Ser Leu Leu Arg Leu Pro Arg
995 1000 1005

Gly Cys Gly Glu Gln Thr Met Ile Tyr Leu Ala Pro Thr Leu Ala
1010 1015 1020

Ala Ser Arg Tyr Leu Asp Lys Thr Glu Gln Trp Ser Thr Leu Pro
1025 1030 1035

Pro Glu Thr Lys Asp His Ala Val Asp Leu Ile Gln Lys Gly Tyr
1040 1045 1050

Met Arg Ile Gln Gln Phe Arg Lys Ala Asp Gly Ser Tyr Ala Ala
1055 1060 1065

Trp Leu Ser Arg Gly Ser Ser Thr Trp Leu Thr Ala Phe Val Leu
1070 1075 1080

Lys Val Leu Ser Leu Ala Gln Glu Gln Val Gly Gly Ser Pro Glu
1085 1090 1095

Lys Leu Gln Glu Thr Ser Asn Trp Leu Leu Ser Gln Gln Gln Ala
1100 1105 1110

Asp Gly Ser Phe Gln Asp Leu Ser Pro Val Ile His Arg Ser Met
1115 1120 1125

Gln Gly Gly Leu Val Gly Asn Asp Glu Thr Val Ala Leu Thr Ala
1130 1135 1140

Phe Val Thr Ile Ala Leu His His Gly Leu Ala Val Phe Gln Asp
1145 1150 1155

Glu Gly Ala Glu Pro Leu Lys Gln Arg Val Glu Ala Ser Ile Ser
1160 1165 1170

Lys Ala Ser Ser Phe Leu Gly Glu Lys Ala Ser Ala Gly Leu Leu
1175 1180 1185

Gly Ala His Ala Ala Ala Ile Thr Ala Tyr Ala Leu Thr Leu Thr
1190 1195 1200

Lys Ala Pro Ala Asp Leu Arg Gly Val Ala His Asn Asn Leu Met
1205 1210 1215

Ala Met Ala Gln Glu Thr Gly Asp Asn Leu Tyr Trp Gly Ser Val
1220 1225 1230

Thr Gly Ser Gln Ser Asn Ala Val Ser Pro Thr Pro Ala Pro Arg
1235 1240 1245

Asn Pro Ser Asp Pro Met Pro Gln Ala Pro Ala Leu Trp Ile Glu
1250 1255 1260

Thr Thr Ala Tyr Ala Leu Leu His Leu Leu Leu His Glu Gly Lys
1265 1270 1275

Ala Glu Met Ala Asp Gln Ala Ala Ala Trp Leu Thr Arg Gln Gly
1280 1285 1290

Ser Phe Gln Gly Gly Phe Arg Ser Thr Gln Asp Thr Val Ile Ala
1295 1300 1305

Leu Asp Ala Leu Ser Ala Tyr Trp Ile Ala Ser His Thr Thr Glu
1310 1315 1320

Glu Arg Gly Leu Asn Val Thr Leu Ser Ser Thr Gly Arg Asn Gly
1325 1330 1335

Phe Lys Ser His Ala Leu Gln Leu Asn Asn Arg Gln Ile Arg Gly
1340 1345 1350

Leu Glu Glu Glu Leu Gln Phe Ser Leu Gly Ser Lys Ile Asn Val
1355 1360 1365

Lys Val Gly Gly Asn Ser Lys Gly Thr Leu Lys Val Leu Arg Thr
1370 1375 1380

Tyr Asn Val Leu Asp Met Lys Asn Thr Thr Cys Gln Asp Leu Gln
1385 1390 1395

Ile Glu Val Thr Val Lys Gly His Val Glu Tyr Thr Met Glu Ala
1400 1405 1410

Asn Glu Asp Tyr Glu Asp Tyr Glu Tyr Asp Glu Leu Pro Ala Lys
1415 1420 1425

Asp Asp Pro Asp Ala Pro Leu Gln Pro Val Thr Pro Leu Gln Leu
1430 1435 1440

Phe Glu Gly Arg Arg Asn Arg Arg Arg Arg Glu Ala Pro Lys Val
1445 1450 1455

Val Glu Glu Gln Glu Ser Arg Val His Tyr Thr Val Cys Ile Trp
1460 1465 1470

Arg Asn Gly Lys Val Gly Leu Ser Gly Met Ala Ile Ala Asp Val
1475 1480 1485

Thr Leu Leu Ser Gly Phe His Ala Leu Arg Ala Asp Leu Glu Lys
1490 1495 1500

Leu Thr Ser Leu Ser Asp Arg Tyr Val Ser His Phe Glu Thr Glu
1505 1510 1515

Gly Pro His Val Leu Leu Tyr Phe Asp Ser Val Pro Thr Ser Arg
1520 1525 1530

Glu Cys Val Gly Phe Glu Ala Val Gln Glu Val Pro Val Gly Leu
1535 1540 1545

Val Gln Pro Ala Ser Ala Thr Leu Tyr Asp Tyr Tyr Asn Pro Glu
1550 1555 1560

Arg Arg Cys Ser Val Phe Tyr Gly Ala Pro Ser Lys Ser Arg Leu
1565 1570 1575

Leu Ala Thr Leu Cys Ser Ala Glu Val Cys Gln Cys Ala Glu Gly
1580 1585 1590

Lys Cys Pro Arg Gln Arg Arg Ala Leu Glu Arg Gly Leu Gln Asp
1595 1600 1605

Glu Asp Gly Tyr Arg Met Lys Phe Ala Cys Tyr Tyr Pro Arg Val

1610

1615

1620

Glu Tyr Gly Phe Gln Val Lys Val Leu Arg Glu Asp Ser Arg Ala
 1625 1630 1635

Ala Phe Arg Leu Phe Glu Thr Lys Ile Thr Gln Val Leu His Phe
 1640 1645 1650

Thr Lys Asp Val Lys Ala Ala Ala Asn Gln Met Arg Asn Phe Leu
 1655 1660 1665

Val Arg Ala Ser Cys Arg Leu Arg Leu Glu Pro Gly Lys Glu Tyr
 1670 1675 1680

Leu Ile Met Gly Leu Asp Gly Ala Thr Tyr Asp Leu Glu Gly His
 1685 1690 1695

Pro Gln Tyr Leu Leu Asp Ser Asn Ser Trp Ile Glu Glu Met Pro
 1700 1705 1710

Ser Glu Arg Leu Cys Arg Ser Thr Arg Gln Arg Ala Ala Cys Ala
 1715 1720 1725

Gln Leu Asn Asp Phe Leu Gln Glu Tyr Gly Thr Gln Gly Cys Gln
 1730 1735 1740

Val

<210> 201
 <211> 181
 <212> PRT
 <213> homo sapiens

<400> 201

Met Cys Lys Gly Leu Ala Ala Leu Pro His Ser Cys Leu Glu Arg Ala
 1 5 10 15

Lys Glu Ile Lys Ile Lys Leu Gly Ile Leu Leu Gln Lys Pro Asp Ser
 20 25 30

Val Gly Asp Leu Val Ile Pro Tyr Asn Glu Lys Pro Glu Lys Pro Ala
 35 40 45

Lys Thr Gln Lys Thr Ser Leu Asp Glu Ala Leu Gln Trp Arg Asp Ser
50 55 60

Leu Asp Lys Leu Leu Gln Asn Asn Tyr Gly Leu Ala Ser Phe Lys Ser
65 70 75 80

Phe Leu Lys Ser Glu Phe Ser Glu Glu Asn Leu Glu Phe Trp Ile Ala
85 90 95

Cys Glu Asp Tyr Lys Lys Ile Lys Ser Pro Ala Lys Met Ala Glu Lys
100 105 110

Ala Lys Gln Ile Tyr Glu Glu Phe Ile Gln Thr Glu Ala Pro Lys Glu
115 120 125

Val Asn Ile Asp His Phe Thr Lys Asp Ile Thr Met Lys Asn Leu Val
130 135 140

Glu Pro Ser Leu Ser Ser Phe Asp Met Ala Gln Lys Arg Ile His Ala
145 150 155 160

Leu Met Glu Lys Asp Ser Leu Pro Arg Phe Val Arg Ser Glu Phe Tyr
165 170 175

Gln Glu Leu Ile Lys
180

<210> 202
<211> 411
<212> PRT
<213> homo sapiens

<400> 202

Met Lys Ala Ala Arg Phe Val Leu Arg Ser Ala Gly Ser Leu Asn Gly
1 5 10 15

Ala Gly Leu Val Pro Arg Glu Val Glu His Phe Ser Arg Tyr Ser Pro
20 25 30

Ser Pro Leu Ser Met Lys Gln Leu Leu Asp Phe Gly Ser Glu Asn Ala
35 40 45

Cys Glu Arg Thr Ser Phe Ala Phe Leu Arg Gln Glu Leu Pro Val Arg

50

55

60

Leu Ala Asn Ile Leu Lys Glu Ile Asp Ile Leu Pro Thr Gln Leu Val
65 70 75 80

Asn Thr Ser Ser Val Gln Leu Val Lys Ser Trp Tyr Ile Gln Ser Leu
85 90 95

Met Asp Leu Val Glu Phe His Glu Lys Ser Pro Asp Asp Gln Lys Ala
100 105 110

Leu Ser Asp Phe Val Asp Thr Leu Ile Lys Val Arg Asn Arg His His
115 120 125

Asn Val Val Pro Thr Met Ala Gln Gly Ile Ile Glu Tyr Lys Asp Ala
130 135 140

Cys Thr Val Asp Pro Val Thr Asn Gln Asn Leu Gln Tyr Phe Leu Asp
145 150 155 160

Arg Phe Tyr Met Asn Arg Ile Ser Thr Arg Met Leu Met Asn Gln His
165 170 175

Ile Leu Ile Phe Ser Asp Ser Gln Thr Gly Asn Pro Ser His Ile Gly
180 185 190

Ser Ile Asp Pro Asn Cys Asp Val Val Ala Val Val Gln Asp Ala Phe
195 200 205

Glu Cys Ser Arg Met Leu Cys Asp Gln Tyr Tyr Leu Ser Ser Pro Glu
210 215 220

Leu Lys Leu Thr Gln Val Asn Gly Lys Phe Pro Asp Gln Pro Ile His
225 230 235 240

Ile Val Tyr Val Pro Ser His Leu His His Met Leu Phe Glu Leu Phe
245 250 255

Lys Asn Ala Met Arg Ala Thr Val Glu His Gln Glu Asn Gln Pro Ser
260 265 270

Leu Thr Pro Ile Glu Val Ile Val Val Leu Gly Lys Glu Asp Leu Thr
275 280 285

Ile Lys Ile Ser Asp Arg Gly Gly Gly Val Pro Leu Arg Ile Ile Asp
290 295 300

Arg Leu Phe Ser Tyr Thr Tyr Ser Thr Ala Pro Thr Pro Val Met Asp
305 310 315 320

Asn Ser Arg Asn Ala Pro Leu Ala Gly Phe Gly Tyr Gly Leu Pro Ile
325 330 335

Ser Arg Leu Tyr Ala Lys Tyr Phe Gln Gly Asp Leu Asn Leu Tyr Ser
340 345 350

Leu Ser Gly Tyr Gly Thr Asp Ala Ile Ile Tyr Leu Lys Ala Leu Ser
355 360 365

Ser Glu Ser Ile Glu Lys Leu Pro Val Phe Asn Lys Ser Ala Phe Lys
370 375 380

His Tyr Gln Met Ser Ser Glu Ala Asp Asp Trp Cys Ile Pro Ser Arg
385 390 395 400

Glu Pro Lys Asn Leu Ala Lys Glu Val Ala Met
405 410

<210> 203
<211> 437
<212> PRT
<213> homo sapiens

<400> 203

Met Ala Ser Val Ala Val Asp Pro Gln Pro Ser Val Val Thr Arg Val
1 5 10 15

Val Asn Leu Pro Leu Val Ser Ser Thr Tyr Asp Leu Met Ser Ser Ala
20 25 30

Tyr Leu Ser Thr Lys Asp Gln Tyr Pro Tyr Leu Lys Ser Val Cys Glu
35 40 45

Met Ala Glu Asn Gly Val Lys Thr Ile Thr Ser Val Ala Met Thr Ser
50 55 60

Ala Leu Pro Ile Ile Gln Lys Leu Glu Pro Gln Ile Ala Val Ala Asn
65 70 75 80

Thr Tyr Ala Cys Lys Gly Leu Asp Arg Ile Glu Glu Arg Leu Pro Ile
85 90 95

Leu Asn Gln Pro Ser Thr Gln Ile Val Ala Asn Ala Lys Gly Ala Val
100 105 110

Thr Gly Ala Lys Asp Ala Val Thr Thr Thr Val Thr Gly Ala Lys Asp
115 120 125

Ser Val Ala Ser Thr Ile Thr Gly Val Met Asp Lys Thr Lys Gly Ala
130 135 140

Val Thr Gly Ser Val Glu Lys Thr Lys Ser Val Val Ser Gly Ser Ile
145 150 155 160

Asn Thr Val Leu Gly Ser Arg Met Met Gln Leu Val Ser Ser Gly Val
165 170 175

Glu Asn Ala Leu Thr Lys Ser Glu Leu Leu Val Glu Gln Tyr Leu Pro
180 185 190

Leu Thr Glu Glu Glu Leu Glu Lys Glu Ala Lys Lys Val Glu Gly Phe
195 200 205

Asp Leu Val Gln Lys Pro Ser Tyr Tyr Val Arg Leu Gly Ser Leu Ser
210 215 220

Thr Lys Leu His Ser Arg Ala Tyr Gln Gln Ala Leu Ser Arg Val Lys
225 230 235 240

Glu Ala Lys Gln Lys Ser Gln Gln Thr Ile Ser Gln Leu His Ser Thr
245 250 255

Val His Leu Ile Glu Phe Ala Arg Lys Asn Val Tyr Ser Ala Asn Gln
260 265 270

Lys Ile Gln Asp Ala Gln Asp Lys Leu Tyr Leu Ser Trp Val Glu Trp
275 280 285

Lys Arg Ser Ile Gly Tyr Asp Asp Thr Asp Glu Ser His Cys Ala Glu

290		295		300
His Ile Glu Ser Arg Thr Leu Ala Ile Ala Arg Asn Leu Thr Gln Gln				
305		310		315 320
Leu Gln Thr Thr Cys His Thr Leu Leu Ser Asn Ile Gln Gly Val Pro				
	325		330	335
Gln Asn Ile Gln Asp Gln Ala Lys His Met Gly Val Met Ala Gly Asp				
	340		345	350
Ile Tyr Ser Val Phe Arg Asn Ala Ala Ser Phe Lys Glu Val Ser Asp				
	355		360	365
Ser Leu Leu Thr Ser Ser Lys Gly Gln Leu Gln Lys Met Lys Glu Ser				
	370		375	380
Leu Asp Asp Val Met Asp Tyr Leu Val Asn Asn Thr Pro Leu Asn Trp				
385		390		395 400
Leu Val Gly Pro Phe Tyr Pro Gln Leu Thr Glu Ser Gln Asn Ala Gln				
	405		410	415
Asp Gln Gly Ala Glu Met Asp Lys Ser Ser Gln Glu Thr Gln Arg Ser				
	420		425	430
Glu His Lys Thr His				
	435			
<210> 204				
<211> 565				
<212> PRT				
<213> homo sapiens				
<400> 204				
Met Thr Phe Ser Glu Ile Leu Asp Arg Val Gly Ser Met Gly His Phe				
1		5		10 15
Gln Phe Leu His Val Ala Ile Leu Gly Leu Pro Ile Leu Asn Met Ala				
	20		25	30
Asn His Asn Leu Leu Gln Ile Phe Thr Ala Ala Thr Pro Val His His				
	35		40	45

Cys Arg Pro Pro His Asn Ala Ser Thr Gly Pro Trp Val Leu Pro Met
50 55 60

Gly Pro Asn Gly Lys Pro Glu Arg Cys Leu Arg Phe Val His Pro Pro
65 70 75 80

Asn Ala Ser Leu Pro Asn Asp Thr Gln Arg Ala Met Glu Pro Cys Leu
85 90 95

Asp Gly Trp Val Tyr Asn Ser Thr Lys Asp Ser Ile Val Thr Glu Trp
100 105 110

Asp Leu Val Cys Asn Ser Asn Lys Leu Lys Glu Met Ala Gln Ser Ile
115 120 125

Phe Met Ala Gly Ile Leu Ile Gly Gly Leu Val Leu Gly Asp Leu Ser
130 135 140

Asp Arg Phe Gly Arg Arg Pro Ile Leu Thr Cys Ser Tyr Leu Leu Leu
145 150 155 160

Ala Ala Ser Gly Ser Gly Ala Ala Phe Ser Pro Thr Phe Pro Ile Tyr
165 170 175

Met Val Phe Arg Phe Leu Cys Gly Phe Gly Ile Ser Gly Ile Thr Leu
180 185 190

Ser Thr Val Ile Leu Asn Val Glu Trp Val Pro Thr Arg Met Arg Ala
195 200 205

Ile Met Ser Thr Ala Leu Gly Tyr Cys Tyr Thr Phe Gly Gln Phe Ile
210 215 220

Leu Pro Gly Leu Ala Tyr Ala Ile Pro Gln Trp Arg Trp Leu Gln Leu
225 230 235 240

Thr Val Ser Ile Pro Phe Phe Val Phe Phe Leu Ser Ser Trp Trp Thr
245 250 255

Pro Glu Ser Ile Arg Trp Leu Val Trp Lys Val Leu Glu Gly Pro Glu
260 265 270

Asp Thr Pro Ala Gly Gly Cys Leu Gln Trp Gln Glu Glu Gly Glu Arg
275 280 285

Leu Ser Leu Glu Glu Leu Lys Leu Asn Leu Gln Lys Glu Ile Ser Leu
290 295 300

Ala Lys Ala Lys Tyr Thr Ala Ser Asp Leu Phe Arg Ile Pro Met Leu
305 310 315 320

Arg Arg Met Thr Phe Cys Leu Ser Leu Ala Trp Phe Ala Thr Gly Phe
325 330 335

Ala Tyr Tyr Ser Leu Ala Met Gly Val Glu Glu Phe Gly Val Asn Leu
340 345 350

Tyr Ile Leu Gln Ile Ile Phe Gly Gly Val Asp Val Pro Ala Lys Phe
355 360 365

Ile Thr Ile Leu Ser Leu Ser Tyr Leu Gly Arg His Thr Thr Gln Ala
370 375 380

Ala Ala Leu Leu Leu Ala Gly Gly Ala Ile Leu Ala Leu Thr Phe Val
385 390 395 400

Pro Leu Asp Leu Gln Thr Val Arg Thr Val Leu Ala Val Phe Gly Lys
405 410 415

Gly Cys Leu Ser Ser Ser Phe Ser Cys Leu Phe Leu Tyr Thr Ser Glu
420 425 430

Leu Tyr Pro Thr Val Ile Arg Gln Thr Gly Met Gly Val Ser Asn Leu
435 440 445

Trp Thr Arg Val Gly Ser Met Val Ser Pro Leu Val Lys Ile Thr Gly
450 455 460

Glu Val Gln Pro Phe Ile Pro Asn Ile Ile Tyr Gly Ile Thr Ala Leu
465 470 475 480

Leu Gly Gly Ser Ala Ala Leu Phe Leu Pro Glu Thr Leu Asn Pro Cys
485 490 495

Gln Arg Leu Ser Lys Thr Trp Lys Thr Gly Gln Ser Leu Pro Leu Ala

500

505

510

Pro Ser Val Leu Leu Pro Gly Glu Ala Gly Leu Gly Pro Gly Leu Phe
 515 520 525

Leu Ser Ser Leu Ser Leu Gly Arg Ala Lys Lys Pro Lys Gln Glu Pro
 530 535 540

Glu Val Glu Lys Ala Ser Gln Arg Ile Pro Leu Gln Pro His Gly Pro
 545 550 555 560

Gly Leu Gly Ser Ser
 565

<210> 205
 <211> 564
 <212> PRT
 <213> homo sapiens

<400> 205

Met Ala Ser Thr Ser Thr Thr Ile Arg Ser His Ser Ser Ser Arg Arg
 1 5 10 15

Gly Phe Ser Ala Asn Ser Ala Arg Leu Pro Gly Val Ser Arg Ser Gly
 20 25 30

Phe Ser Ser Val Ser Val Ser Arg Ser Arg Gly Ser Gly Gly Leu Gly
 35 40 45

Gly Ala Cys Gly Gly Ala Gly Phe Gly Ser Arg Ser Leu Tyr Gly Leu
 50 55 60

Gly Gly Ser Lys Arg Ile Ser Ile Gly Gly Gly Ser Cys Ala Ile Ser
 65 70 75 80

Gly Gly Tyr Gly Ser Arg Ala Gly Gly Ser Tyr Gly Phe Gly Gly Ala
 85 90 95

Gly Ser Gly Phe Gly Phe Gly Gly Gly Ala Gly Ile Gly Phe Gly Leu
 100 105 110

Gly Gly Gly Ala Gly Leu Ala Gly Gly Phe Gly Gly Pro Gly Phe Pro
 115 120 125

Val Cys Pro Pro Gly Gly Ile Gln Glu Val Thr Val Asn Gln Ser Leu
130 135 140

Leu Thr Pro Leu Asn Leu Gln Ile Asp Pro Thr Ile Gln Arg Val Arg
145 150 155 160

Ala Glu Glu Arg Glu Gln Ile Lys Thr Leu Asn Asn Lys Phe Ala Ser
165 170 175

Phe Ile Asp Lys Val Arg Phe Leu Glu Gln Gln Asn Lys Val Leu Glu
180 185 190

Thr Lys Trp Thr Leu Leu Gln Glu Gln Gly Thr Lys Thr Val Arg Gln
195 200 205

Asn Leu Glu Pro Leu Phe Glu Gln Tyr Ile Asn Asn Leu Arg Arg Gln
210 215 220

Leu Asp Ser Ile Val Gly Glu Arg Gly Arg Leu Asp Ser Glu Leu Arg
225 230 235 240

Gly Met Gln Asp Leu Val Glu Asp Phe Lys Asn Lys Tyr Glu Asp Glu
245 250 255

Ile Asn Lys Arg Thr Ala Ala Glu Asn Glu Phe Val Thr Leu Lys Lys
260 265 270

Asp Val Asp Ala Ala Tyr Met Asn Lys Val Glu Leu Gln Ala Lys Ala
275 280 285

Asp Thr Leu Thr Asp Glu Ile Asn Phe Leu Arg Ala Leu Tyr Asp Ala
290 295 300

Glu Leu Ser Gln Met Gln Thr His Ile Ser Asp Thr Ser Val Val Leu
305 310 315 320

Ser Met Asp Asn Asn Arg Asn Leu Asp Leu Asp Ser Ile Ile Ala Glu
325 330 335

Val Lys Ala Gln Tyr Glu Glu Ile Ala Gln Arg Ser Arg Ala Glu Ala
340 345 350

Glu Ser Trp Tyr Gln Thr Lys Tyr Glu Glu Leu Gln Val Thr Ala Gly
355 360 365

Arg His Gly Asp Asp Leu Arg Asn Thr Lys Gln Glu Ile Ala Glu Ile
370 375 380

Asn Arg Met Ile Gln Arg Leu Arg Ser Glu Ile Asp His Val Lys Lys
385 390 395 400

Gln Cys Ala Asn Leu Gln Ala Ala Ile Ala Asp Ala Glu Gln Arg Gly
405 410 415

Glu Met Ala Leu Lys Asp Ala Lys Asn Lys Leu Glu Gly Leu Glu Asp
420 425 430

Ala Leu Gln Lys Ala Lys Gln Asp Leu Ala Arg Leu Leu Lys Glu Tyr
435 440 445

Gln Glu Leu Met Asn Val Lys Leu Ala Leu Asp Val Glu Ile Ala Thr
450 455 460

Tyr Arg Lys Leu Leu Glu Gly Glu Glu Cys Arg Leu Asn Gly Glu Gly
465 470 475 480

Val Gly Gln Val Asn Ile Ser Val Val Gln Ser Thr Val Ser Ser Gly
485 490 495

Tyr Gly Gly Ala Ser Gly Val Gly Ser Gly Leu Gly Leu Gly Gly Gly
500 505 510

Ser Ser Tyr Ser Tyr Gly Ser Gly Leu Gly Val Gly Gly Gly Phe Ser
515 520 525

Ser Ser Ser Gly Arg Ala Ile Gly Gly Gly Leu Ser Ser Val Gly Gly
530 535 540

Gly Ser Ser Thr Ile Lys Tyr Thr Thr Thr Ser Ser Ser Ser Arg Lys
545 550 555 560

Ser Tyr Lys His

<211> 502
<212> PRT
<213> homo sapiens

<400> 206

Met Leu Ala Ala Met Gly Ser Leu Ala Ala Ala Leu Trp Ala Val Val
1 5 10 15

His Pro Arg Thr Leu Leu Leu Gly Thr Val Ala Phe Leu Leu Ala Ala
20 25 30

Asp Phe Leu Lys Arg Arg Arg Pro Lys Asn Tyr Pro Pro Gly Pro Trp
35 40 45

Arg Leu Pro Phe Leu Gly Asn Phe Phe Leu Val Asp Phe Glu Gln Ser
50 55 60

His Leu Glu Val Gln Leu Phe Val Lys Lys Tyr Gly Asn Leu Phe Ser
65 70 75 80

Leu Glu Leu Gly Asp Ile Ser Ala Val Leu Ile Thr Gly Leu Pro Leu
85 90 95

Ile Lys Glu Ala Leu Ile His Met Asp Gln Asn Phe Gly Asn Arg Pro
100 105 110

Val Thr Pro Met Arg Glu His Ile Phe Lys Lys Asn Gly Leu Ile Met
115 120 125

Ser Ser Gly Gln Ala Trp Lys Glu Gln Arg Arg Phe Thr Leu Thr Ala
130 135 140

Leu Arg Asn Phe Gly Leu Gly Lys Lys Ser Leu Glu Glu Arg Ile Gln
145 150 155 160

Glu Glu Ala Gln His Leu Thr Glu Ala Ile Lys Glu Glu Asn Gly Gln
165 170 175

Pro Phe Asp Pro His Phe Lys Ile Asn Asn Ala Val Ser Asn Ile Ile
180 185 190

Cys Ser Ile Thr Phe Gly Glu Arg Phe Glu Tyr Gln Asp Ser Trp Phe
195 200 205

Gln Gln Leu Leu Lys Leu Leu Asp Glu Val Thr Tyr Leu Glu Ala Ser
210 215 220

Lys Thr Cys Gln Leu Tyr Asn Val Phe Pro Trp Ile Met Lys Phe Leu
225 230 235 240

Pro Gly Pro His Gln Thr Leu Phe Ser Asn Trp Lys Lys Leu Lys Leu
245 250 255

Phe Val Ser His Met Ile Asp Lys His Arg Lys Asp Trp Asn Pro Ala
260 265 270

Glu Thr Arg Asp Phe Ile Asp Ala Tyr Leu Lys Glu Met Ser Lys His
275 280 285

Thr Gly Asn Pro Thr Ser Ser Phe His Glu Glu Asn Leu Ile Cys Ser
290 295 300

Thr Leu Asp Leu Phe Phe Ala Gly Thr Glu Thr Thr Ser Thr Thr Leu
305 310 315 320

Arg Trp Ala Leu Leu Tyr Met Ala Leu Tyr Pro Glu Ile Gln Glu Lys
325 330 335

Val Gln Ala Glu Ile Asp Arg Val Ile Gly Gln Gly Gln Gln Pro Ser
340 345 350

Thr Ala Ala Arg Glu Ser Met Pro Tyr Thr Asn Ala Val Ile His Glu
355 360 365

Val Gln Arg Met Gly Asn Ile Ile Pro Leu Asn Val Pro Arg Glu Val
370 375 380

Thr Val Asp Thr Thr Leu Ala Gly Tyr His Leu Pro Lys Gly Thr Met
385 390 395 400

Ile Leu Thr Asn Leu Thr Ala Leu His Arg Asp Pro Thr Glu Trp Ala
405 410 415

Thr Pro Asp Thr Phe Asn Pro Asp His Phe Leu Glu Asn Gly Gln Phe
420 425 430

Lys Lys Arg Glu Ala Phe Met Pro Phe Ser Ile Gly Lys Arg Ala Cys
435 440 445

Leu Gly Glu Gln Leu Ala Arg Thr Glu Leu Phe Ile Phe Phe Thr Ser
450 455 460

Leu Met Gln Lys Phe Thr Phe Arg Pro Pro Asn Asn Glu Lys Leu Ser
465 470 475 480

Leu Lys Phe Arg Met Gly Ile Thr Ile Ser Pro Val Ser His Arg Leu
485 490 495

Cys Ala Val Pro Gln Val
500

<210> 207
<211> 737
<212> PRT
<213> homo sapiens

<400> 207

Met Gly Gly Cys Thr Val Lys Pro Gln Leu Leu Leu Ala Leu Val
1 5 10 15

Leu His Pro Trp Asn Pro Cys Leu Gly Ala Asp Ser Glu Lys Pro Ser
20 25 30

Ser Ile Pro Thr Asp Lys Leu Leu Val Ile Thr Val Ala Thr Lys Glu
35 40 45

Ser Asp Gly Phe His Arg Phe Met Gln Ser Ala Lys Tyr Phe Asn Tyr
50 55 60

Thr Val Lys Val Leu Gly Gln Gly Glu Glu Trp Arg Gly Gly Asp Gly
65 70 75 80

Ile Asn Ser Ile Gly Gly Gly Gln Lys Val Arg Leu Met Lys Glu Val
85 90 95

Met Glu His Tyr Ala Asp Gln Asp Asp Leu Val Val Met Phe Thr Glu
100 105 110

Cys Phe Asp Val Ile Phe Ala Gly Gly Pro Glu Glu Val Leu Lys Lys
115 120 125

Phe Gln Lys Ala Asn His Lys Val Val Phe Ala Ala Asp Gly Ile Leu
130 135 140

Trp Pro Asp Lys Arg Leu Ala Asp Lys Tyr Pro Val Val His Ile Gly
145 150 155 160

Lys Arg Tyr Leu Asn Ser Gly Gly Phe Ile Gly Tyr Ala Pro Tyr Val
165 170 175

Asn Arg Ile Val Gln Gln Trp Asn Leu Gln Asp Asn Asp Asp Asp Gln
180 185 190

Leu Phe Tyr Thr Lys Val Tyr Ile Asp Pro Leu Lys Arg Glu Ala Ile
195 200 205

Asn Ile Thr Leu Asp His Lys Cys Lys Ile Phe Gln Thr Leu Asn Gly
210 215 220

Ala Val Asp Glu Val Val Leu Lys Phe Glu Asn Gly Lys Ala Arg Ala
225 230 235 240

Lys Asn Thr Phe Tyr Glu Thr Leu Pro Val Ala Ile Asn Gly Asn Gly
245 250 255

Pro Thr Lys Ile Leu Leu Asn Tyr Phe Gly Asn Tyr Val Pro Asn Ser
260 265 270

Trp Thr Gln Asp Asn Gly Cys Thr Leu Cys Glu Phe Asp Thr Val Asp
275 280 285

Leu Ser Ala Val Asp Val His Pro Asn Val Ser Ile Gly Val Phe Ile
290 295 300

Glu Gln Pro Thr Pro Phe Leu Pro Arg Phe Leu Asp Ile Leu Leu Thr
305 310 315 320

Leu Asp Tyr Pro Lys Glu Ala Leu Lys Leu Phe Ile His Asn Lys Glu
325 330 335

Val Tyr His Glu Lys Asp Ile Lys Val Phe Phe Asp Lys Ala Lys His
340 345 350

Glu Ile Lys Thr Ile Lys Ile Val Gly Pro Glu Glu Asn Leu Ser Gln
355 360 365

Ala Glu Ala Arg Asn Met Gly Met Asp Phe Cys Arg Gln Asp Glu Lys
370 375 380

Cys Asp Tyr Tyr Phe Ser Val Asp Ala Asp Val Val Leu Thr Asn Pro
385 390 395 400

Arg Thr Leu Lys Ile Leu Ile Glu Gln Asn Arg Lys Ile Ile Ala Pro
405 410 415

Leu Val Thr Arg His Gly Lys Leu Trp Ser Asn Phe Trp Gly Ala Leu
420 425 430

Ser Pro Asp Gly Tyr Tyr Ala Arg Ser Glu Asp Tyr Val Asp Ile Val
435 440 445

Gln Gly Asn Arg Val Gly Val Trp Asn Val Pro Tyr Met Ala Asn Val
450 455 460

Tyr Leu Ile Lys Gly Lys Thr Leu Arg Ser Glu Met Asn Glu Arg Asn
465 470 475 480

Tyr Phe Val Arg Asp Lys Leu Asp Pro Asp Met Ala Leu Cys Arg Asn
485 490 495

Ala Arg Glu Met Gly Val Phe Met Tyr Ile Ser Asn Arg His Glu Phe
500 505 510

Gly Arg Leu Leu Ser Thr Ala Asn Tyr Asn Thr Ser His Tyr Asn Asn
515 520 525

Asp Leu Trp Gln Ile Phe Glu Asn Pro Val Asp Trp Lys Glu Lys Tyr
530 535 540

Ile Asn Arg Asp Tyr Ser Lys Ile Phe Thr Glu Asn Ile Val Glu Gln
545 550 555 560

Pro Cys Pro Asp Val Phe Trp Phe Pro Ile Phe Ser Glu Lys Ala Cys
565 570 575

Asp Glu Leu Val Glu Glu Met Glu His Tyr Gly Lys Trp Ser Gly Gly
580 585 590

Lys His His Asp Ser Arg Ile Ser Gly Gly Tyr Glu Asn Val Pro Thr
595 600 605

Asp Asp Ile His Met Lys Gln Val Asp Leu Glu Asn Val Trp Leu His
610 615 620

Phe Ile Arg Glu Phe Ile Ala Pro Val Thr Leu Lys Val Phe Ala Gly
625 630 635 640

Tyr Tyr Thr Lys Gly Phe Ala Leu Leu Asn Phe Val Val Lys Tyr Ser
645 650 655

Pro Glu Arg Gln Arg Ser Leu Arg Pro His His Asp Ala Ser Thr Phe
660 665 670

Thr Ile Asn Ile Ala Leu Asn Asn Val Gly Glu Asp Phe Gln Gly Gly
675 680 685

Gly Cys Lys Phe Leu Arg Tyr Asn Cys Ser Ile Glu Ser Pro Arg Lys
690 695 700

Gly Trp Ser Phe Met His Pro Gly Arg Leu Thr His Leu His Glu Gly
705 710 715 720

Leu Pro Val Lys Asn Gly Thr Arg Tyr Ile Ala Val Ser Phe Ile Asp
725 730 735

Pro

<210> 208
<211> 204
<212> PRT
<213> homo sapiens

<400> 208

Glu Ile Ser Val Ser His Arg Val Val Leu His Ile Asn Glu Leu Ala
1 5 10 15

Arg Cys Glu Gly Arg Ser Gly Phe Lys Arg Gly Gln Gly Gly Arg Arg
20 25 30

Glu Ala Val Glu Arg Ala Arg Arg Gln Ala Gln Ser Ala Ala His Gly
35 40 45

His Arg Gln Pro Trp Ala Ser Thr Asp Gly Ala Ala Gly Ala Ser Arg
50 55 60

Ala Gly Arg Arg Ala Pro Gly Arg Glu Ser Arg Ala Glu Leu Gly Gly
65 70 75 80

Val Ser Gly Pro Pro Leu Arg Arg Ala Ser Ala Leu Pro Met Ser Leu
85 90 95

Leu Pro Arg Arg Ala Pro Pro Val Ser Met Arg Leu Leu Ala Ala Ala
100 105 110

Leu Leu Leu Leu Leu Leu Ala Leu Tyr Thr Ala Arg Val Asp Gly Ser
115 120 125

Lys Cys Lys Cys Ser Arg Lys Gly Pro Lys Ile Arg Tyr Ser Asp Val
130 135 140

Lys Lys Leu Glu Met Lys Pro Lys Tyr Pro His Cys Glu Glu Lys Met
145 150 155 160

Val Ile Ile Thr Thr Lys Ser Val Ser Arg Tyr Arg Gly Gln Glu His
165 170 175

Cys Leu His Pro Lys Leu Gln Ser Thr Lys Arg Phe Ile Lys Trp Tyr
180 185 190

Asn Ala Trp Asn Glu Lys Arg Arg Val Tyr Glu Glu
195 200

<210> 209
<211> 222
<212> PRT
<213> homo sapiens

<400> 209

Met Ala Gly Lys Pro Lys Leu His Tyr Phe Asn Gly Arg Gly Arg Met
1 5 10 15

Glu Pro Ile Arg Trp Leu Leu Ala Ala Ala Gly Val Glu Phe Glu Glu
20 25 30

Lys Phe Ile Gly Ser Ala Glu Asp Leu Gly Lys Leu Arg Asn Asp Gly
35 40 45

Ser Leu Met Phe Gln Gln Val Pro Met Val Glu Ile Asp Gly Met Lys
50 55 60

Leu Val Gln Thr Arg Ala Ile Leu Asn Tyr Ile Ala Ser Lys Tyr Asn
65 70 75 80

Leu Tyr Gly Lys Asp Ile Lys Glu Arg Ala Leu Ile Asp Met Tyr Thr
85 90 95

Glu Gly Met Ala Asp Leu Asn Glu Met Ile Leu Leu Leu Pro Leu Cys
100 105 110

Arg Pro Glu Glu Lys Asp Ala Lys Ile Ala Leu Ile Lys Glu Lys Thr
115 120 125

Lys Ser Arg Tyr Phe Pro Ala Phe Glu Lys Val Leu Gln Ser His Gly
130 135 140

Gln Asp Tyr Leu Val Gly Asn Lys Leu Ser Arg Ala Asp Ile Ser Leu
145 150 155 160

Val Glu Leu Leu Tyr Tyr Val Glu Glu Leu Asp Ser Ser Leu Ile Ser
165 170 175

Asn Phe Pro Leu Leu Lys Ala Leu Lys Thr Arg Ile Ser Asn Leu Pro
180 185 190

Thr Val Lys Lys Phe Leu Gln Pro Gly Ser Pro Arg Lys Pro Pro Ala
195 200 205

Asp Ala Lys Ala Leu Glu Glu Ala Arg Lys Ile Phe Arg Phe
210 215 220

<210> 210
<211> 135
<212> PRT
<213> homo sapiens

<400> 210

Met Pro Pro Asn Leu Thr Gly Tyr Tyr Arg Phe Val Ser Gln Lys Asn
1 5 10 15

Met Glu Asp Tyr Leu Gln Ala Leu Asn Ile Ser Leu Ala Val Arg Lys
20 25 30

Ile Ala Leu Leu Leu Lys Pro Asp Lys Glu Ile Glu His Gln Gly Asn
35 40 45

His Met Thr Val Arg Thr Leu Ser Thr Phe Arg Asn Tyr Thr Val Gln
50 55 60

Phe Asp Val Gly Val Glu Phe Glu Glu Asp Leu Arg Ser Val Asp Gly
65 70 75 80

Arg Lys Cys Gln Thr Ile Val Thr Trp Glu Glu Glu His Leu Val Cys
85 90 95

Val Gln Lys Gly Glu Val Pro Asn Arg Gly Trp Arg His Trp Leu Glu
100 105 110

Gly Glu Met Leu Tyr Leu Glu Leu Thr Ala Arg Asp Ala Val Cys Glu
115 120 125

Gln Val Phe Arg Lys Val Arg
130 135

<210> 211

<211> 196

<212> PRT

<213> homo sapiens

<400> 211

Met Pro Gly Met Phe Phe Ser Ala Asn Pro Lys Glu Leu Lys Gly Thr
1 5 10 15

Thr His Ser Leu Leu Asp Asp Lys Met Gln Lys Arg Arg Pro Lys Thr
20 25 30

Phe Gly Met Asp Met Lys Ala Tyr Leu Arg Ser Met Ile Pro His Leu
35 40 45

Glu Ser Gly Met Lys Ser Ser Lys Ser Lys Asp Val Leu Ser Ala Ala
50 55 60

Glu Val Met Gln Trp Ser Gln Ser Leu Glu Lys Leu Leu Ala Asn Gln
65 70 75 80

Thr Gly Gln Asn Val Phe Gly Ser Phe Leu Lys Ser Glu Phe Ser Glu
85 90 95

Glu Asn Ile Glu Phe Trp Leu Ala Cys Glu Asp Tyr Lys Lys Thr Glu
100 105 110

Ser Asp Leu Leu Pro Cys Lys Ala Glu Glu Ile Tyr Lys Ala Phe Val
115 120 125

His Ser Asp Ala Ala Lys Gln Ile Asn Ile Asp Phe Arg Thr Arg Glu
130 135 140

Ser Thr Ala Lys Lys Ile Lys Ala Pro Thr Pro Thr Cys Phe Asp Glu
145 150 155 160

Ala Gln Lys Val Ile Tyr Thr Leu Met Glu Lys Asp Ser Tyr Pro Arg
165 170 175

Phe Leu Lys Ser Asp Ile Tyr Leu Asn Leu Leu Asn Asp Leu Gln Ala
180 185 190

Asn Ser Leu Lys
195

<210> 212
<211> 957
<212> PRT
<213> homo sapiens

<400> 212

Met Asn Phe Ala Glu Arg Glu Gly Ser Lys Arg Tyr Cys Ile Gln Thr
1 5 10 15

Lys His Val Ala Ile Leu Cys Ala Val Val Val Gly Val Gly Leu Ile
20 25 30

Val Gly Leu Ala Val Gly Leu Thr Arg Ser Cys Asp Ser Ser Gly Asp
35 40 45

Gly Gly Pro Gly Thr Ala Pro Ala Pro Ser His Leu Pro Ser Ser Thr
50 55 60

Ala Ser Pro Ser Gly Pro Pro Ala Gln Asp Gln Asp Ile Cys Pro Ala
65 70 75 80

Ser Glu Asp Glu Ser Gly Gln Trp Lys Asn Phe Arg Leu Pro Asp Phe
85 90 95

Val Asn Pro Val His Tyr Asp Leu His Val Lys Pro Leu Leu Glu Glu
100 105 110

Asp Thr Tyr Thr Gly Thr Val Ser Ile Ser Ile Asn Leu Ser Ala Pro
115 120 125

Thr Arg Tyr Leu Trp Leu His Leu Arg Glu Thr Arg Ile Thr Arg Leu
130 135 140

Pro Glu Leu Lys Arg Pro Ser Gly Asp Gln Val Gln Val Arg Arg Cys
145 150 155 160

Phe Glu Tyr Lys Lys Gln Glu Tyr Val Val Val Glu Ala Glu Glu Glu
165 170 175

Leu Thr Pro Ser Ser Gly Asp Gly Leu Tyr Leu Leu Thr Met Glu Phe
180 185 190

Ala Gly Trp Leu Asn Gly Ser Leu Val Gly Phe Tyr Arg Thr Thr Tyr
195 200 205

Thr Glu Asn Gly Gln Val Lys Ser Ile Val Ala Thr Asp His Glu Pro
210 215 220

Thr Asp Ala Arg Lys Ser Phe Pro Cys Phe Asp Glu Pro Asn Lys Lys
225 230 235 240

Ala Thr Tyr Thr Ile Ser Ile Thr His Pro Lys Glu Tyr Gly Ala Leu
245 250 255

Ser Asn Met Pro Val Ala Lys Glu Glu Ser Val Asp Asp Lys Trp Thr
260 265 270

Arg Thr Thr Phe Glu Lys Ser Val Pro Met Ser Thr Tyr Leu Val Cys
275 280 285

Phe Ala Val His Gln Phe Asp Ser Val Lys Arg Ile Ser Asn Ser Gly
290 295 300

Lys Pro Leu Thr Ile Tyr Val Gln Pro Glu Gln Lys His Thr Ala Glu
305 310 315 320

Tyr Ala Ala Asn Ile Thr Lys Ser Val Phe Asp Tyr Phe Glu Glu Tyr
325 330 335

Phe Ala Met Asn Tyr Ser Leu Pro Lys Leu Asp Lys Ile Ala Ile Pro
340 345 350

Asp Phe Gly Thr Gly Ala Met Glu Asn Trp Gly Leu Ile Thr Tyr Arg
355 360 365

Glu Thr Asn Leu Leu Tyr Asp Pro Lys Glu Ser Ala Ser Ser Asn Gln
370 375 380

Gln Arg Val Ala Thr Val Val Ala His Glu Leu Val His Gln Trp Phe
385 390 395 400

Gly Asn Ile Val Thr Met Asp Trp Trp Glu Asp Leu Trp Leu Asn Glu
405 410 415

Gly Phe Ala Ser Phe Phe Glu Phe Leu Gly Val Asn His Ala Glu Thr
420 425 430

Asp Trp Gln Met Arg Asp Gln Met Leu Leu Glu Asp Val Leu Pro Val
435 440 445

Gln Glu Asp Asp Ser Leu Met Ser Ser His Pro Ile Ile Val Thr Val
450 455 460

Thr Thr Pro Asp Glu Ile Thr Ser Val Phe Asp Gly Ile Ser Tyr Ser
465 470 475 480

Lys Gly Ser Ser Ile Leu Arg Met Leu Glu Asp Trp Ile Lys Pro Glu
485 490 495

Asn Phe Gln Lys Gly Cys Gln Met Tyr Leu Glu Lys Tyr Gln Phe Lys
500 505 510

Asn Ala Lys Thr Ser Asp Phe Trp Ala Ala Leu Glu Glu Ala Ser Arg
515 520 525

Leu Pro Val Lys Glu Val Met Asp Thr Trp Thr Arg Gln Met Gly Tyr
530 535 540

Pro Val Leu Asn Val Asn Gly Val Lys Asn Ile Thr Gln Lys Arg Phe
545 550 555 560

Leu Leu Asp Pro Arg Ala Asn Pro Ser Gln Pro Pro Ser Asp Leu Gly
565 570 575

Tyr Thr Trp Asn Ile Pro Val Lys Trp Thr Glu Asp Asn Ile Thr Ser
580 585 590

Ser Val Leu Phe Asn Arg Ser Glu Lys Glu Gly Ile Thr Leu Asn Ser
595 600 605

Ser Asn Pro Ser Gly Asn Ala Phe Leu Lys Ile Asn Pro Asp His Ile
610 615 620

Gly Phe Tyr Arg Val Asn Tyr Glu Val Ala Thr Trp Asp Ser Ile Ala
625 630 635 640

Thr Ala Leu Ser Leu Asn His Lys Thr Phe Ser Ser Ala Asp Arg Ala
645 650 655

Ser Leu Ile Asp Asp Ala Phe Ala Leu Ala Arg Ala Gln Leu Leu Asp
660 665 670

Tyr Lys Val Ala Leu Asn Leu Thr Lys Tyr Leu Lys Arg Glu Glu Asn
675 680 685

Phe Leu Pro Trp Gln Arg Val Ile Ser Ala Val Thr Tyr Ile Ile Ser
690 695 700

Met Phe Glu Asp Asp Lys Glu Leu Tyr Pro Met Ile Glu Glu Tyr Phe
705 710 715 720

Gln Gly Gln Val Lys Pro Ile Ala Asp Ser Leu Gly Trp Asn Asp Ala

725

730

735

Gly Asp His Val Thr Lys Leu Leu Arg Ser Ser Val Leu Gly Phe Ala
 740 745 750

Cys Lys Met Gly Asp Arg Glu Ala Leu Asn Asn Ala Ser Ser Leu Phe
 755 760 765

Glu Gln Trp Leu Asn Gly Thr Val Ser Leu Pro Val Asn Leu Arg Leu
 770 775 780

Leu Val Tyr Arg Tyr Gly Met Gln Asn Ser Gly Asn Glu Ile Ser Trp
 785 790 795 800

Asn Tyr Thr Leu Glu Gln Tyr Gln Lys Thr Ser Leu Ala Gln Glu Lys
 805 810 815

Glu Lys Leu Leu Tyr Gly Leu Ala Ser Val Lys Asn Val Thr Leu Leu
 820 825 830

Ser Arg Tyr Leu Asp Leu Leu Lys Asp Thr Asn Leu Ile Lys Thr Gln
 835 840 845

Asp Val Phe Thr Val Ile Arg Tyr Ile Ser Tyr Asn Ser Tyr Gly Lys
 850 855 860

Asn Met Ala Trp Asn Trp Ile Gln Leu Asn Trp Asp Tyr Leu Val Asn
 865 870 875 880

Arg Tyr Thr Leu Asn Asn Arg Asn Leu Gly Arg Ile Val Thr Ile Ala
 885 890 895

Glu Pro Phe Asn Thr Glu Leu Gln Leu Trp Gln Met Glu Ser Phe Phe
 900 905 910

Ala Lys Tyr Pro Gln Ala Gly Ala Gly Glu Lys Pro Arg Glu Gln Val
 915 920 925

Leu Glu Thr Val Lys Asn Asn Ile Glu Trp Leu Lys Gln His Arg Asn
 930 935 940

Thr Ile Arg Glu Trp Phe Phe Asn Leu Leu Glu Ser Gly
 945 950 955

<210> 213
<211> 202
<212> PRT
<213> homo sapiens

<400> 213

Met Lys Val Leu Ala Ala Gly Val Val Pro Leu Leu Leu Val Leu His
1 5 10 15

Trp Lys His Gly Ala Gly Ser Pro Leu Pro Ile Thr Pro Val Asn Ala
20 25 30

Thr Cys Ala Ile Arg His Pro Cys His Asn Asn Leu Met Asn Gln Ile
35 40 45

Arg Ser Gln Leu Ala Gln Leu Asn Gly Ser Ala Asn Ala Leu Phe Ile
50 55 60

Leu Tyr Tyr Thr Ala Gln Gly Glu Pro Phe Pro Asn Asn Leu Asp Lys
65 70 75 80

Leu Cys Gly Pro Asn Val Thr Asp Phe Pro Pro Phe His Ala Asn Gly
85 90 95

Thr Glu Lys Ala Lys Leu Val Glu Leu Tyr Arg Ile Val Val Tyr Leu
100 105 110

Gly Thr Ser Leu Gly Asn Ile Thr Arg Asp Gln Lys Ile Leu Asn Pro
115 120 125

Ser Ala Leu Ser Leu His Ser Lys Leu Asn Ala Thr Ala Asp Ile Leu
130 135 140

Arg Gly Leu Leu Ser Asn Val Leu Cys Arg Leu Cys Ser Lys Tyr His
145 150 155 160

Val Gly His Val Asp Val Thr Tyr Gly Pro Asp Thr Ser Gly Lys Asp
165 170 175

Val Phe Gln Lys Lys Lys Leu Gly Cys Gln Leu Leu Gly Lys Tyr Lys
180 185 190

Gln Ile Ile Ala Val Leu Ala Gln Ala Phe
195 200

<210> 214
<211> 248
<212> PRT
<213> homo sapiens

<400> 214

Gln Gly Met Glu Arg Pro Ala Ala Arg Glu Pro His Gly Pro Asp Ala
1 5 10 15

Leu Arg Arg Phe Gln Gly Leu Leu Leu Asp Arg Arg Gly Arg Leu His
20 25 30

Gly Gln Val Leu Arg Leu Arg Glu Val Ala Arg Arg Leu Glu Arg Leu
35 40 45

Arg Arg Arg Ser Leu Val Ala Asn Val Ala Gly Ser Ser Leu Ser Ala
50 55 60

Thr Gly Ala Leu Ala Ala Ile Val Gly Leu Ser Leu Ser Pro Val Thr
65 70 75 80

Leu Gly Thr Ser Leu Leu Val Ser Ala Val Gly Leu Gly Val Ala Thr
85 90 95

Ala Gly Gly Ala Val Thr Ile Thr Ser Asp Leu Ser Leu Ile Phe Cys
100 105 110

Asn Ser Arg Glu Leu Arg Arg Val Gln Glu Ile Ala Ala Thr Cys Gln
115 120 125

Asp Gln Met Arg Glu Ile Leu Ser Cys Leu Glu Phe Phe Cys Arg Trp
130 135 140

Gln Gly Cys Gly Asp Arg Gln Leu Leu Gln Cys Gly Arg Asn Ala Ser
145 150 155 160

Ile Ala Leu Tyr Asn Ser Val Tyr Phe Ile Val Phe Phe Gly Ser Arg
165 170 175

Gly Phe Leu Ile Pro Arg Arg Ala Glu Gly Asp Thr Lys Val Ser Gln
180 185 190

Ala Val Leu Lys Ala Lys Ile Gln Lys Leu Ala Glu Ser Leu Glu Ser
195 200 205

Cys Thr Gly Ala Leu Asp Glu Leu Ser Glu Gln Leu Glu Ser Arg Val
210 215 220

Gln Leu Cys Thr Lys Ser Ser Arg Gly His Asp Leu Lys Ile Ser Ala
225 230 235 240

Asp Gln Arg Ala Gly Leu Phe Phe
245

<210> 215
<211> 431
<212> PRT
<213> homo sapiens

<400> 215

Met Thr Val Lys Thr Glu Ala Ala Lys Gly Thr Leu Thr Tyr Ser Arg
1 5 10 15

Met Arg Gly Met Val Ala Ile Leu Ile Ala Phe Met Lys Gln Arg Arg
20 25 30

Met Gly Leu Asn Asp Phe Ile Gln Lys Ile Ala Asn Asn Ser Tyr Ala
35 40 45

Cys Lys His Pro Glu Val Gln Ser Ile Leu Lys Ile Ser Gln Pro Gln
50 55 60

Glu Pro Glu Leu Met Asn Ala Asn Pro Ser Pro Pro Pro Ser Pro Ser
65 70 75 80

Gln Gln Ile Asn Leu Gly Pro Ser Ser Asn Pro His Ala Lys Pro Ser
85 90 95

Asp Phe His Phe Leu Lys Val Ile Gly Lys Gly Ser Phe Gly Lys Val
100 105 110

Leu Leu Ala Arg His Lys Ala Glu Glu Val Phe Tyr Ala Val Lys Val
115 120 125

Leu Gln Lys Lys Ala Ile Leu Lys Lys Lys Glu Glu Lys His Ile Met
130 135 140

Ser Glu Arg Asn Val Leu Leu Lys Asn Val Lys His Pro Phe Leu Val
145 150 155 160

Gly Leu His Phe Ser Phe Gln Thr Ala Asp Lys Leu Tyr Phe Val Leu
165 170 175

Asp Tyr Ile Asn Gly Gly Glu Leu Phe Tyr His Leu Gln Arg Glu Arg
180 185 190

Cys Phe Leu Glu Pro Arg Ala Arg Phe Tyr Ala Ala Glu Ile Ala Ser
195 200 205

Ala Leu Gly Tyr Leu His Ser Leu Asn Ile Val Tyr Arg Asp Leu Lys
210 215 220

Pro Glu Asn Ile Leu Leu Asp Ser Gln Gly His Ile Val Leu Thr Asp
225 230 235 240

Phe Gly Leu Cys Lys Glu Asn Ile Glu His Asn Ser Thr Thr Ser Thr
245 250 255

Phe Cys Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val Leu His Lys Gln
260 265 270

Pro Tyr Asp Arg Thr Val Asp Trp Trp Cys Leu Gly Ala Val Leu Tyr
275 280 285

Glu Met Leu Tyr Gly Leu Pro Pro Phe Tyr Ser Arg Asn Thr Ala Glu
290 295 300

Met Tyr Asp Asn Ile Leu Asn Lys Pro Leu Gln Leu Lys Pro Asn Ile
305 310 315 320

Thr Asn Ser Ala Arg His Leu Leu Glu Gly Leu Leu Gln Lys Asp Arg
325 330 335

Thr Lys Arg Leu Gly Ala Lys Asp Asp Phe Met Glu Ile Lys Ser His
340 345 350

Val Phe Phe Ser Leu Ile Asn Trp Asp Asp Leu Ile Asn Lys Lys Ile

355 360 365
 Thr Pro Pro Phe Asn Pro Asn Val Ser Gly Pro Asn Asp Leu Arg His
 370 375 380

 Phe Asp Pro Glu Phe Thr Glu Glu Pro Val Pro Asn Ser Ile Gly Lys
 385 390 395 400

 Ser Pro Asp Ser Val Leu Val Thr Ala Ser Val Lys Glu Ala Ala Glu
 405 410 415

 Ala Phe Leu Gly Phe Ser Tyr Ala Pro Pro Thr Asp Ser Phe Leu
 420 425 430

 <210> 216
 <211> 227
 <212> PRT
 <213> homo sapiens

 <400> 216

 Met Ala Pro Cys His Ile Arg Lys Tyr Gln Glu Ser Asp Arg Gln Trp
 1 5 10 15

 Val Val Gly Leu Leu Ser Arg Gly Met Ala Glu His Ala Pro Ala Thr
 20 25 30

 Phe Arg Gln Leu Leu Lys Leu Pro Arg Thr Leu Ile Leu Leu Leu Gly
 35 40 45

 Gly Pro Leu Ala Leu Leu Leu Val Ser Gly Ser Trp Leu Leu Ala Leu
 50 55 60

 Val Phe Ser Ile Ser Leu Phe Pro Ala Leu Trp Phe Leu Ala Lys Lys
 65 70 75 80

 Pro Trp Thr Glu Tyr Val Asp Met Thr Leu Cys Thr Asp Met Ser Asp
 85 90 95

 Ile Thr Lys Ser Tyr Leu Ser Glu Arg Gly Ser Cys Phe Trp Val Ala
 100 105 110

 Glu Ser Glu Glu Lys Val Val Gly Met Val Gly Ala Leu Pro Val Asp
 115 120 125

Asp Pro Thr Leu Arg Glu Lys Arg Leu Gln Leu Phe His Leu Phe Val
130 135 140

Asp Ser Glu His Arg Arg Gln Gly Ile Ala Lys Ala Leu Val Arg Thr
145 150 155 160

Val Leu Gln Phe Ala Arg Asp Gln Gly Tyr Ser Glu Val Ile Leu Asp
165 170 175

Thr Gly Thr Ile Gln Leu Ser Ala Met Ala Leu Tyr Gln Ser Met Gly
180 185 190

Phe Lys Lys Thr Gly Gln Ser Phe Phe Cys Val Trp Ala Arg Leu Val
195 200 205

Ala Leu His Thr Val His Phe Ile Tyr His Leu Pro Ser Ser Lys Val
210 215 220

Gly Ser Leu
225

<210> 217
<211> 261
<212> PRT
<213> homo sapiens

<400> 217

Met Ala Glu Ser His Leu Gln Ser Ser Leu Ile Thr Ala Ser Gln Phe
1 5 10 15

Phe Glu Ile Trp Leu His Phe Asp Ala Asp Gly Ser Gly Tyr Leu Glu
20 25 30

Gly Lys Glu Leu Gln Asn Leu Ile Gln Glu Leu Gln Gln Ala Arg Lys
35 40 45

Lys Ala Gly Leu Glu Leu Ser Pro Glu Met Lys Thr Phe Val Asp Gln
50 55 60

Tyr Gly Gln Arg Asp Asp Gly Lys Ile Gly Ile Val Glu Leu Ala His
65 70 75 80

Val Leu Pro Thr Glu Glu Asn Phe Leu Leu Leu Phe Arg Cys Gln Gln

85

90

95

Leu Lys Ser Cys Glu Glu Phe Met Lys Thr Trp Arg Lys Tyr Asp Thr
 100 105 110

Asp His Ser Gly Phe Ile Glu Thr Glu Glu Leu Lys Asn Phe Leu Lys
 115 120 125

Asp Leu Leu Glu Lys Ala Asn Lys Thr Val Asp Asp Thr Lys Leu Ala
 130 135 140

Glu Tyr Thr Asp Leu Met Leu Lys Leu Phe Asp Ser Asn Asn Asp Gly
 145 150 155 160

Lys Leu Glu Leu Thr Glu Met Ala Arg Leu Leu Pro Val Gln Glu Asn
 165 170 175

Phe Leu Leu Lys Phe Gln Gly Ile Lys Met Cys Gly Lys Glu Phe Asn
 180 185 190

Lys Ala Phe Glu Leu Tyr Asp Gln Asp Gly Asn Gly Tyr Ile Asp Glu
 195 200 205

Asn Glu Leu Asp Ala Leu Leu Lys Asp Leu Cys Glu Lys Asn Lys Gln
 210 215 220

Asp Leu Asp Ile Asn Asn Ile Thr Thr Tyr Lys Lys Asn Ile Met Ala
 225 230 235 240

Leu Ser Asp Gly Gly Lys Leu Tyr Arg Thr Asp Leu Ala Leu Ile Leu
 245 250 255

Cys Ala Gly Asp Asn
 260

<210> 218
 <211> 490
 <212> PRT
 <213> homo sapiens

<400> 218

Arg Leu Thr Leu Val Leu Ala Leu Ala Thr Leu Ile Ala Ala Phe Gly
 1 5 10 15

Ser Ser Phe Gln Tyr Gly Tyr Asn Val Ala Ala Val Asn Ser Pro Ala
20 25 30

Leu Leu Met Gln Gln Phe Tyr Asn Glu Thr Tyr Tyr Gly Arg Thr Gly
35 40 45

Glu Phe Met Glu Asp Phe Pro Leu Thr Leu Leu Trp Ser Val Thr Val
50 55 60

Ser Met Phe Pro Phe Gly Gly Phe Ile Gly Ser Leu Leu Val Gly Pro
65 70 75 80

Leu Val Asn Lys Phe Gly Arg Lys Gly Ala Leu Leu Phe Asn Asn Ile
85 90 95

Phe Ser Ile Val Pro Ala Ile Leu Met Gly Cys Ser Arg Val Ala Thr
100 105 110

Ser Phe Glu Leu Ile Ile Ile Ser Arg Leu Leu Val Gly Ile Cys Ala
115 120 125

Gly Val Ser Ser Asn Val Val Pro Met Tyr Leu Gly Glu Leu Ala Pro
130 135 140

Lys Asn Leu Arg Gly Ala Leu Gly Val Val Pro Gln Leu Phe Ile Thr
145 150 155 160

Val Gly Ile Leu Val Ala Gln Ile Phe Gly Leu Arg Asn Leu Leu Ala
165 170 175

Asn Val Asp Gly Trp Pro Ile Leu Leu Gly Leu Thr Gly Val Pro Ala
180 185 190

Ala Leu Gln Leu Leu Leu Leu Pro Phe Phe Pro Glu Ser Pro Arg Tyr
195 200 205

Leu Leu Ile Gln Lys Lys Asp Glu Ala Ala Ala Lys Lys Ala Leu Gln
210 215 220

Thr Leu Arg Gly Trp Asp Ser Val Asp Arg Glu Val Ala Glu Ile Arg
225 230 235 240

Gln Glu Asp Glu Ala Glu Lys Ala Ala Gly Phe Ile Ser Val Leu Lys
245 250 255

Leu Phe Arg Met Arg Ser Leu Arg Trp Gln Leu Leu Ser Ile Ile Val
260 265 270

Leu Met Gly Gly Gln Gln Leu Ser Gly Val Asn Ala Ile Tyr Tyr Tyr
275 280 285

Ala Asp Gln Ile Tyr Leu Ser Ala Gly Val Pro Glu Glu His Val Gln
290 295 300

Tyr Val Thr Ala Gly Thr Gly Ala Val Asn Val Val Met Thr Phe Cys
305 310 315 320

Ala Val Phe Val Val Glu Leu Leu Gly Arg Arg Leu Leu Leu Leu Leu
325 330 335

Gly Phe Ser Ile Cys Leu Ile Ala Cys Cys Val Leu Thr Ala Ala Leu
340 345 350

Ala Leu Gln Asp Thr Val Ser Trp Met Pro Tyr Ile Ser Ile Val Cys
355 360 365

Val Ile Ser Tyr Val Ile Gly His Ala Leu Gly Pro Ser Pro Ile Pro
370 375 380

Ala Leu Leu Ile Thr Glu Ile Phe Leu Gln Ser Ser Arg Pro Ser Ala
385 390 395 400

Phe Met Val Gly Gly Ser Val His Trp Leu Ser Asn Phe Thr Val Gly
405 410 415

Leu Ile Phe Pro Phe Ile Gln Glu Gly Leu Gly Pro Tyr Ser Phe Ile
420 425 430

Val Phe Ala Val Ile Cys Leu Leu Thr Thr Ile Tyr Ile Phe Leu Ile
435 440 445

Val Pro Glu Thr Lys Ala Lys Thr Phe Ile Glu Ile Asn Gln Ile Phe
450 455 460

Thr Lys Met Asn Lys Val Ser Glu Val Tyr Pro Glu Lys Glu Glu Leu

465

470

475

480

Lys Glu Leu Pro Pro Val Thr Ser Glu Gln
 485 490

<210> 219

<211> 191

<212> PRT

<213> homo sapiens

<400> 219

Met Asn Phe Leu Leu Ser Trp Val His Trp Ser Leu Ala Leu Leu Leu
 1 5 10 15

Tyr Leu His His Ala Lys Trp Ser Gln Ala Ala Pro Met Ala Glu Gly
 20 25 30

Gly Gly Gln Asn His His Glu Val Val Lys Phe Met Asp Val Tyr Gln
 35 40 45

Arg Ser Tyr Cys His Pro Ile Glu Thr Leu Val Asp Ile Phe Gln Glu
 50 55 60

Tyr Pro Asp Glu Ile Glu Tyr Ile Phe Lys Pro Ser Cys Val Pro Leu
 65 70 75 80

Met Arg Cys Gly Gly Cys Cys Asn Asp Glu Gly Leu Glu Cys Val Pro
 85 90 95

Thr Glu Glu Ser Asn Ile Thr Met Gln Ile Met Arg Ile Lys Pro His
 100 105 110

Gln Gly Gln His Ile Gly Glu Met Ser Phe Leu Gln His Asn Lys Cys
 115 120 125

Glu Cys Arg Pro Lys Lys Asp Arg Ala Arg Gln Glu Asn Pro Cys Gly
 130 135 140

Pro Cys Ser Glu Arg Arg Lys His Leu Phe Val Gln Asp Pro Gln Thr
 145 150 155 160

Cys Lys Cys Ser Cys Lys Asn Thr Asp Ser Arg Cys Lys Ala Arg Gln
 165 170 175

Leu Glu Leu Asn Glu Arg Thr Cys Arg Cys Asp Lys Pro Arg Arg
180 185 190

<210> 220
<211> 231
<212> PRT
<213> homo sapiens

<400> 220

Met Asn Phe Leu Leu Ser Trp Val His Trp Ser Leu Ala Leu Leu Leu
1 5 10 15

Tyr Leu His His Ala Lys Trp Ser Gln Ala Ala Pro Met Ala Glu Gly
20 25 30

Gly Gly Gln Asn His His Glu Val Val Lys Phe Met Asp Val Tyr Gln
35 40 45

Arg Ser Tyr Cys His Pro Ile Glu Thr Leu Val Asp Ile Phe Gln Glu
50 55 60

Tyr Pro Asp Glu Ile Glu Tyr Ile Phe Lys Pro Ser Cys Val Pro Leu
65 70 75 80

Met Arg Cys Gly Gly Cys Cys Asn Asp Glu Gly Leu Glu Cys Val Pro
85 90 95

Thr Glu Glu Ser Asn Ile Thr Met Gln Ile Met Arg Ile Lys Pro His
100 105 110

Gln Gly Gln His Ile Gly Glu Met Ser Phe Leu Gln His Asn Lys Cys
115 120 125

Glu Cys Arg Pro Lys Lys Asp Arg Ala Arg Gln Glu Lys Lys Ser Val
130 135 140

Arg Gly Lys Gly Lys Gly Gln Lys Arg Lys Arg Lys Lys Ser Arg Lys
145 150 155 160

Ser Trp Ser Val Tyr Val Gly Ala Arg Cys Cys Leu Met Pro Trp Ser
165 170 175

Leu Pro Gly Pro His Pro Cys Gly Pro Cys Ser Glu Arg Arg Lys His

180	185	190
Leu Phe Val Gln Asp Pro Gln Thr Cys Lys Cys Ser Cys Lys Asn Thr		
195	200	205
Asp Ser Arg Cys Lys Ala Arg Gln Leu Glu Leu Asn Glu Arg Thr Cys		
210	215	220
Arg Cys Asp Lys Pro Arg Arg		
225	230	
<210> 221		
<211> 307		
<212> PRT		
<213> homo sapiens		
<400> 221		
Met Ala Ala Leu Leu Leu Gly Ala Val Leu Leu Val Ala Gln Pro Gln		
1	5	10 15
Leu Val Pro Ser Arg Pro Ala Glu Leu Gly Gln Gln Glu Leu Leu Arg		
	20	25 30
Lys Ala Gly Thr Leu Gln Asp Asp Val Arg Asp Gly Val Ala Pro Asn		
	35	40 45
Gly Ser Ala Gln Gln Leu Pro Gln Thr Ile Ile Ile Gly Val Arg Lys		
	50	55 60
Gly Gly Thr Arg Ala Leu Leu Glu Met Leu Ser Leu His Pro Asp Val		
65	70	75 80
Ala Ala Ala Glu Asn Glu Val His Phe Phe Asp Trp Glu Glu His Tyr		
	85	90 95
Ser His Gly Leu Gly Trp Tyr Leu Ser Gln Met Pro Phe Ser Trp Pro		
	100	105 110
His Gln Leu Thr Val Glu Lys Thr Pro Ala Tyr Phe Thr Ser Pro Lys		
	115	120 125
Val Pro Glu Arg Val Tyr Ser Met Asn Pro Ser Ile Arg Leu Leu Leu		
	130	135 140

Ile Leu Arg Asp Pro Ser Glu Arg Val Leu Ser Asp Tyr Thr Gln Val
145 150 155 160

Phe Tyr Asn His Met Gln Lys His Lys Pro Tyr Pro Ser Ile Glu Glu
165 170 175

Phe Leu Val Arg Asp Gly Arg Leu Asn Val Asp Tyr Lys Ala Leu Asn
180 185 190

Arg Ser Leu Tyr His Val His Met Gln Asn Trp Leu Arg Phe Phe Pro
195 200 205

Leu Arg His Ile His Ile Val Asp Gly Asp Arg Leu Ile Arg Asp Pro
210 215 220

Phe Pro Glu Ile Gln Lys Val Glu Arg Phe Leu Lys Leu Ser Pro Gln
225 230 235 240

Ile Asn Ala Ser Asn Phe Tyr Phe Asn Lys Thr Lys Gly Phe Tyr Cys
245 250 255

Leu Arg Asp Ser Gly Arg Asp Arg Cys Leu His Glu Ser Lys Gly Arg
260 265 270

Ala His Pro Gln Val Asp Pro Lys Leu Leu Asn Lys Leu His Glu Tyr
275 280 285

Phe His Glu Pro Asn Lys Lys Phe Phe Glu Leu Val Gly Arg Thr Phe
290 295 300

Asp Trp His
305

<210> 222
<211> 163
<212> PRT
<213> homo sapiens

<400> 222

Met Met Leu Pro Leu Gln Gly Ala Gln Met Leu Gln Met Leu Glu Lys
1 5 10 15

Ser Leu Arg Lys Ser Leu Pro Ala Ser Leu Lys Val Tyr Gly Thr Val

20

25

30

Phe His Ile Asn His Gly Asn Pro Phe Asn Leu Lys Ala Val Val Asp
 35 40 45

Lys Trp Pro Asp Phe Asn Thr Val Val Val Cys Pro Gln Glu Gln Asp
 50 55 60

Met Thr Asp Asp Leu Asp His Tyr Thr Asn Thr Tyr Gln Ile Tyr Ser
 65 70 75 80

Lys Asp Pro Gln Asn Cys Gln Glu Phe Leu Gly Ser Pro Glu Leu Ile
 85 90 95

Asn Trp Lys Gln His Leu Gln Ile Gln Ser Ser Gln Pro Ser Leu Asn
 100 105 110

Glu Ala Ile Gln Asn Leu Ala Ala Ile Lys Ser Phe Lys Val Lys Gln
 115 120 125

Thr Gln Arg Ile Leu Tyr Met Ala Ala Glu Thr Ala Lys Glu Leu Thr
 130 135 140

Pro Phe Leu Leu Lys Ser Lys Ile Leu Ser Pro Asn Gly Gly Lys Pro
 145 150 155 160

Lys Ala Met

<210> 223

<211> 873

<212> PRT

<213> homo sapiens

<400> 223

Met Gly Asn Arg Gly Met Glu Asp Leu Ile Pro Leu Val Asn Arg Leu
 1 5 10 15

Gln Asp Ala Phe Ser Ala Ile Gly Gln Asn Ala Asp Leu Asp Leu Pro
 20 25 30

Gln Ile Ala Val Val Gly Gly Gln Ser Ala Gly Lys Ser Ser Val Leu
 35 40 45

Glu Asn Phe Val Gly Arg Asp Phe Leu Pro Arg Gly Ser Gly Ile Val
50 55 60

Thr Arg Arg Pro Leu Val Leu Gln Leu Val Asn Ala Thr Thr Glu Tyr
65 70 75 80

Ala Glu Phe Leu His Cys Lys Gly Lys Lys Phe Thr Asp Phe Glu Glu
85 90 95

Val Arg Leu Glu Ile Glu Ala Glu Thr Asp Arg Val Thr Gly Thr Asn
100 105 110

Lys Gly Ile Ser Pro Val Pro Ile Asn Leu Arg Val Tyr Ser Pro His
115 120 125

Val Leu Asn Leu Thr Leu Val Asp Leu Pro Gly Met Thr Lys Val Pro
130 135 140

Val Gly Asp Gln Pro Pro Asp Ile Glu Phe Gln Ile Arg Asp Met Leu
145 150 155 160

Met Gln Phe Val Thr Lys Glu Asn Cys Leu Ile Leu Ala Val Ser Pro
165 170 175

Ala Asn Ser Asp Leu Ala Asn Ser Asp Ala Leu Lys Val Ala Lys Glu
180 185 190

Val Asp Pro Gln Gly Gln Arg Thr Ile Gly Val Ile Thr Lys Leu Asp
195 200 205

Leu Met Asp Glu Gly Thr Asp Ala Arg Asp Val Leu Glu Asn Lys Leu
210 215 220

Leu Pro Leu Arg Arg Gly Tyr Ile Gly Val Val Asn Arg Ser Gln Lys
225 230 235 240

Asp Ile Asp Gly Lys Lys Asp Ile Thr Ala Ala Leu Ala Ala Glu Arg
245 250 255

Lys Phe Phe Leu Ser His Pro Ser Tyr Arg His Leu Ala Asp Arg Met
260 265 270

Gly Thr Pro Tyr Leu Gln Lys Val Leu Asn Gln Gln Leu Thr Asn His
275 280 285

Ile Arg Asp Thr Leu Pro Gly Leu Arg Asn Lys Leu Gln Ser Gln Leu
290 295 300

Leu Ser Ile Glu Lys Glu Val Glu Glu Tyr Lys Asn Phe Arg Pro Asp
305 310 315 320

Asp Pro Ala Arg Lys Thr Lys Ala Leu Leu Gln Met Val Gln Gln Phe
325 330 335

Ala Val Asp Phe Glu Lys Arg Ile Glu Gly Ser Gly Asp Gln Ile Asp
340 345 350

Thr Tyr Glu Leu Ser Gly Gly Ala Arg Ile Asn Arg Ile Phe His Glu
355 360 365

Arg Phe Pro Phe Glu Leu Val Lys Met Glu Phe Asp Glu Lys Glu Leu
370 375 380

Arg Arg Glu Ile Ser Tyr Ala Ile Lys Asn Ile His Gly Ile Arg His
385 390 395 400

Val Leu Gly Pro Gly Arg Val Ala Glu Pro Gln Lys Thr Gly Leu Phe
405 410 415

Thr Pro Asp Met Ala Phe Glu Thr Ile Val Lys Lys Gln Val Lys Lys
420 425 430

Ile Arg Glu Pro Cys Leu Lys Cys Val Asp Met Val Ile Ser Glu Leu
435 440 445

Ile Ser Thr Val Arg Gln Cys Thr Lys Lys Leu Gln Gln Tyr Pro Arg
450 455 460

Leu Arg Glu Glu Met Glu Arg Ile Val Thr Thr His Ile Arg Glu Arg
465 470 475 480

Glu Gly Arg Thr Lys Glu Gln Val Met Leu Leu Ile Asp Ile Glu Leu
485 490 495

Ala Tyr Met Asn Thr Asn His Glu Asp Phe Ile Gly Phe Ala Asn Ala

500					505					510					
Gln	Gln	Arg	Ser	Asn	Gln	Met	Asn	Lys	Lys	Lys	Thr	Ser	Gly	Asn	Gln
		515					520					525			
Val	Ile	Arg	Lys	Gly	Trp	Leu	Thr	Ile	Asn	Asn	Ile	Gly	Ile	Met	Lys
	530					535					540				
Gly	Gly	Ser	Lys	Glu	Tyr	Trp	Phe	Val	Leu	Thr	Ala	Glu	Asn	Leu	Ser
545					550					555					560
Trp	Tyr	Lys	Asp	Asp	Glu	Glu	Lys	Glu	Lys	Lys	Tyr	Met	Leu	Ser	Val
				565					570					575	
Asp	Asn	Leu	Lys	Leu	Arg	Asp	Val	Glu	Lys	Gly	Phe	Met	Ser	Ser	Lys
			580					585					590		
His	Ile	Phe	Ala	Leu	Phe	Asn	Thr	Glu	Gln	Arg	Asn	Val	Tyr	Lys	Asp
		595					600					605			
Tyr	Arg	Gln	Leu	Glu	Leu	Ala	Cys	Glu	Thr	Gln	Glu	Glu	Val	Asp	Ser
	610					615					620				
Trp	Lys	Ala	Ser	Phe	Leu	Arg	Ala	Gly	Val	Tyr	Pro	Glu	Arg	Val	Gly
625					630					635					640
Asp	Lys	Glu	Lys	Ala	Ser	Glu	Thr	Glu	Glu	Asn	Gly	Ser	Asp	Ser	Phe
				645					650					655	
Met	His	Ser	Met	Asp	Pro	Gln	Leu	Glu	Arg	Gln	Val	Glu	Thr	Ile	Arg
			660					665					670		
Asn	Leu	Val	Asp	Ser	Tyr	Met	Ala	Ile	Val	Asn	Lys	Thr	Val	Arg	Asp
		675					680					685			
Leu	Met	Pro	Lys	Thr	Ile	Met	His	Leu	Met	Ile	Asn	Asn	Thr	Lys	Glu
	690					695					700				
Phe	Ile	Phe	Ser	Glu	Leu	Leu	Ala	Asn	Leu	Tyr	Ser	Cys	Gly	Asp	Gln
705					710					715					720
Asn	Thr	Leu	Met	Glu	Glu	Ser	Ala	Glu	Gln	Ala	Gln	Arg	Arg	Asp	Glu
				725					730					735	

Met Leu Arg Met Tyr His Ala Leu Lys Glu Ala Leu Ser Ile Ile Gly
740 745 750

Asp Ile Asn Thr Thr Thr Val Ser Thr Pro Met Pro Pro Pro Val Asp
755 760 765

Asp Ser Trp Leu Gln Val Gln Ser Val Pro Ala Gly Arg Arg Ser Pro
770 775 780

Thr Ser Ser Pro Thr Pro Gln Arg Arg Ala Pro Ala Val Pro Pro Ala
785 790 795 800

Arg Pro Gly Ser Arg Gly Pro Ala Pro Gly Pro Pro Pro Ala Gly Ser
805 810 815

Ala Leu Gly Gly Ala Pro Pro Val Pro Ser Arg Pro Gly Ala Ser Pro
820 825 830

Asp Pro Phe Gly Pro Pro Pro Gln Val Pro Ser Arg Pro Asn Arg Ala
835 840 845

Pro Pro Gly Val Pro Ser Arg Ser Gly Gln Ala Ser Pro Ser Arg Pro
850 855 860

Glu Ser Pro Arg Pro Pro Phe Asp Leu
865 870

<210> 224
<211> 83
<212> PRT
<213> homo sapiens

<400> 224

Met Arg Leu Phe Leu Ser Leu Pro Val Leu Val Val Val Leu Ser Ile
1 5 10 15

Val Leu Glu Gly Pro Ala Pro Ala Gln Gly Thr Pro Asp Val Ser Ser
20 25 30

Ala Leu Asp Lys Leu Lys Glu Phe Gly Asn Thr Leu Glu Asp Lys Ala
35 40 45

Arg Glu Leu Ile Ser Arg Ile Lys Gln Ser Glu Leu Ser Ala Lys Met
50 55 60

Arg Glu Trp Phe Ser Glu Thr Phe Gln Lys Val Lys Glu Lys Leu Lys
65 70 75 80

Ile Asp Ser

<210> 225
<211> 382
<212> PRT
<213> homo sapiens

<400> 225

Met Ala Leu Gln Gly Ile Ser Val Val Glu Leu Ser Gly Leu Ala Pro
1 5 10 15

Gly Pro Phe Cys Ala Met Val Leu Ala Asp Phe Gly Ala Arg Val Val
20 25 30

Arg Val Asp Arg Pro Gly Ser Arg Tyr Asp Val Ser Arg Leu Gly Arg
35 40 45

Gly Lys Arg Ser Leu Val Leu Asp Leu Lys Gln Pro Arg Gly Ala Ala
50 55 60

Val Leu Arg Arg Leu Cys Lys Arg Ser Asp Val Leu Leu Glu Pro Phe
65 70 75 80

Arg Arg Gly Val Met Glu Lys Leu Gln Leu Gly Pro Glu Ile Leu Gln
85 90 95

Arg Glu Asn Pro Arg Leu Ile Tyr Ala Arg Leu Ser Gly Phe Gly Gln
100 105 110

Ser Gly Ser Phe Cys Arg Leu Ala Gly His Asp Ile Asn Tyr Leu Ala
115 120 125

Leu Ser Gly Val Leu Ser Lys Ile Gly Arg Ser Gly Glu Asn Pro Tyr
130 135 140

Ala Pro Leu Asn Leu Leu Ala Asp Phe Ala Gly Gly Gly Leu Met Cys
145 150 155 160

Ala Leu Gly Ile Ile Met Ala Leu Phe Asp Arg Thr Arg Thr Gly Lys
165 170 175

Gly Gln Val Ile Asp Ala Asn Met Val Glu Gly Thr Ala Tyr Leu Ser
180 185 190

Ser Phe Leu Trp Lys Thr Gln Lys Leu Ser Leu Trp Glu Ala Pro Arg
195 200 205

Gly Gln Asn Met Leu Asp Gly Gly Ala Pro Phe Tyr Thr Thr Tyr Arg
210 215 220

Thr Ala Asp Gly Glu Phe Met Ala Val Gly Ala Ile Glu Pro Gln Phe
225 230 235 240

Tyr Glu Leu Leu Ile Lys Gly Leu Gly Leu Lys Ser Asp Glu Leu Pro
245 250 255

Asn Gln Met Ser Met Asp Asp Trp Pro Glu Met Lys Lys Lys Phe Ala
260 265 270

Asp Val Phe Ala Glu Lys Thr Lys Ala Glu Trp Cys Gln Ile Phe Asp
275 280 285

Gly Thr Asp Ala Cys Val Thr Pro Val Leu Thr Phe Glu Glu Val Val
290 295 300

His His Asp His Asn Lys Glu Arg Gly Ser Phe Ile Thr Ser Glu Glu
305 310 315 320

Gln Asp Val Ser Pro Arg Pro Ala Pro Leu Leu Leu Asn Thr Pro Ala
325 330 335

Ile Pro Ser Phe Lys Arg Asp Pro Phe Ile Gly Glu His Thr Glu Glu
340 345 350

Ile Leu Glu Glu Phe Gly Phe Ser Arg Glu Glu Ile Tyr Gln Leu Asn
355 360 365

Ser Asp Lys Ile Ile Glu Ser Asn Lys Val Lys Ala Ser Leu
370 375 380

<210> 226
<211> 690
<212> PRT
<213> homo sapiens

<400> 226

Met Ala Pro Trp Pro Glu Leu Gly Asp Ala Gln Pro Asn Pro Asp Lys
1 5 10 15

Tyr Leu Glu Gly Ala Ala Gly Gln Gln Pro Thr Ala Pro Asp Lys Ser
20 25 30

Lys Glu Thr Asn Lys Thr Asp Asn Thr Glu Ala Pro Val Thr Lys Ile
35 40 45

Glu Leu Leu Pro Ser Tyr Ser Thr Ala Thr Leu Ile Asp Glu Pro Thr
50 55 60

Glu Val Asp Asp Pro Trp Asn Leu Pro Thr Leu Gln Asp Ser Gly Ile
65 70 75 80

Lys Trp Ser Glu Arg Asp Thr Lys Gly Lys Ile Leu Cys Phe Phe Gln
85 90 95

Gly Ile Gly Arg Leu Ile Leu Leu Leu Gly Phe Leu Tyr Phe Phe Val
100 105 110

Cys Ser Leu Asp Ile Leu Ser Ser Ala Phe Gln Leu Val Gly Gly Lys
115 120 125

Met Ala Gly Gln Phe Phe Ser Asn Ser Ser Ile Met Ser Asn Pro Leu
130 135 140

Leu Gly Leu Val Ile Gly Val Leu Val Thr Val Leu Val Gln Ser Ser
145 150 155 160

Ser Thr Ser Thr Ser Ile Val Val Ser Met Val Ser Ser Ser Leu Leu
165 170 175

Thr Val Arg Ala Ala Ile Pro Ile Ile Met Gly Ala Asn Ile Gly Thr
180 185 190

Ser Ile Thr Asn Thr Ile Val Ala Leu Met Gln Val Gly Asp Arg Ser

195

200

205

Glu Phe Arg Arg Ala Phe Ala Gly Ala Thr Val His Asp Phe Phe Asn
 210 215 220

Trp Leu Ser Val Leu Val Leu Leu Pro Val Glu Val Ala Thr His Tyr
 225 230 235 240

Leu Glu Ile Ile Thr Gln Leu Ile Val Glu Ser Phe His Phe Lys Asn
 245 250 255

Gly Glu Asp Ala Pro Asp Leu Leu Lys Val Ile Thr Lys Pro Phe Thr
 260 265 270

Lys Leu Ile Val Gln Leu Asp Lys Lys Val Ile Ser Gln Ile Ala Met
 275 280 285

Asn Asp Glu Lys Ala Lys Asn Lys Ser Leu Val Lys Ile Trp Cys Lys
 290 295 300

Thr Phe Thr Asn Lys Thr Gln Ile Asn Val Thr Val Pro Ser Thr Ala
 305 310 315 320

Asn Cys Thr Ser Pro Ser Leu Cys Trp Thr Asp Gly Ile Gln Asn Trp
 325 330 335

Thr Met Lys Asn Val Thr Tyr Lys Glu Asn Ile Ala Lys Cys Gln His
 340 345 350

Ile Phe Val Asn Phe His Leu Pro Asp Leu Ala Val Gly Thr Ile Leu
 355 360 365

Leu Ile Leu Ser Leu Leu Val Leu Cys Gly Cys Leu Ile Met Ile Val
 370 375 380

Lys Ile Leu Gly Ser Val Leu Lys Gly Gln Val Ala Thr Val Ile Lys
 385 390 395 400

Lys Thr Ile Asn Thr Asp Phe Pro Phe Pro Phe Ala Trp Leu Thr Gly
 405 410 415

Tyr Leu Ala Ile Leu Val Gly Ala Gly Met Thr Phe Ile Val Gln Ser
 420 425 430

Ser Ser Val Phe Thr Ser Ala Leu Thr Pro Leu Ile Gly Ile Gly Val
435 440 445

Ile Thr Ile Glu Arg Ala Tyr Pro Leu Thr Leu Gly Ser Asn Ile Gly
450 455 460

Thr Thr Thr Thr Ala Ile Leu Ala Ala Leu Ala Ser Pro Gly Asn Ala
465 470 475 480

Leu Arg Ser Ser Leu Gln Ile Ala Leu Cys His Phe Phe Phe Asn Ile
485 490 495

Ser Gly Ile Leu Leu Trp Tyr Pro Ile Pro Phe Thr Arg Leu Pro Ile
500 505 510

Arg Met Ala Lys Gly Leu Gly Asn Ile Ser Ala Lys Tyr Arg Trp Phe
515 520 525

Ala Val Phe Tyr Leu Ile Ile Phe Phe Phe Leu Ile Pro Leu Thr Val
530 535 540

Phe Gly Leu Ser Leu Ala Gly Trp Arg Val Leu Val Gly Val Gly Val
545 550 555 560

Pro Val Val Phe Ile Ile Ile Leu Val Leu Cys Leu Arg Leu Leu Gln
565 570 575

Ser Arg Cys Pro Arg Val Leu Pro Lys Lys Leu Gln Asn Trp Asn Phe
580 585 590

Leu Pro Leu Trp Met Arg Ser Leu Lys Pro Trp Asp Ala Val Val Ser
595 600 605

Lys Phe Thr Gly Cys Phe Gln Met Arg Cys Cys Cys Cys Cys Arg Val
610 615 620

Cys Cys Arg Ala Cys Cys Leu Leu Cys Asp Cys Pro Lys Cys Cys Arg
625 630 635 640

Cys Ser Lys Cys Cys Glu Asp Leu Glu Glu Ala Gln Glu Gly Gln Asp
645 650 655

Val Pro Val Lys Ala Pro Glu Thr Phe Asp Asn Ile Thr Ile Ser Arg
660 665 670

Glu Ala Gln Gly Glu Val Pro Ala Ser Asp Ser Lys Thr Glu Cys Thr
675 680 685

Ala Leu
690

<210> 227
<211> 323
<212> PRT
<213> homo sapiens

<400> 227

Met Asp Ser Lys His Gln Cys Val Lys Leu Asn Asp Gly His Phe Met
1 5 10 15

Pro Val Leu Gly Phe Gly Thr Tyr Ala Pro Pro Glu Val Pro Arg Ser
20 25 30

Lys Ala Leu Glu Val Thr Lys Leu Ala Ile Glu Ala Gly Phe Arg His
35 40 45

Ile Asp Ser Ala His Leu Tyr Asn Asn Glu Glu Gln Val Gly Leu Ala
50 55 60

Ile Arg Ser Lys Ile Ala Asp Gly Ser Val Lys Arg Glu Asp Ile Phe
65 70 75 80

Tyr Thr Ser Lys Leu Trp Ser Thr Phe His Arg Pro Glu Leu Val Arg
85 90 95

Pro Ala Leu Glu Asn Ser Leu Lys Lys Ala Gln Leu Asp Tyr Val Asp
100 105 110

Leu Tyr Leu Ile His Ser Pro Met Ser Leu Lys Pro Gly Glu Glu Leu
115 120 125

Ser Pro Thr Asp Glu Asn Gly Lys Val Ile Phe Asp Ile Val Asp Leu
130 135 140

Cys Thr Thr Trp Glu Ala Met Glu Lys Cys Lys Asp Ala Gly Leu Ala

145		150		155		160
Lys Ser Ile Gly Val Ser Asn Phe Asn Arg Arg Gln Leu Glu Met Ile						
	165			170		175
Leu Asn Lys Pro Gly Leu Lys Tyr Lys Pro Val Cys Asn Gln Val Glu						
	180			185		190
Cys His Pro Tyr Phe Asn Arg Ser Lys Leu Leu Asp Phe Cys Lys Ser						
	195			200		205
Lys Asp Ile Val Leu Val Ala Tyr Ser Ala Leu Gly Ser Gln Arg Asp						
	210			215		220
Lys Arg Trp Val Asp Pro Asn Ser Pro Val Leu Leu Glu Asp Pro Val						
	225			230		235
						240
Leu Cys Ala Leu Ala Lys Lys His Lys Arg Thr Pro Ala Leu Ile Ala						
	245			250		255
Leu Arg Tyr Gln Leu Gln Arg Gly Val Val Val Leu Ala Lys Ser Tyr						
	260			265		270
Asn Glu Gln Arg Ile Arg Gln Asn Val Gln Val Phe Glu Phe Gln Leu						
	275			280		285
Thr Ala Glu Asp Met Lys Ala Ile Asp Gly Leu Asp Arg Asn Leu His						
	290			295		300
Tyr Phe Asn Ser Asp Ser Phe Ala Ser His Pro Asn Tyr Pro Tyr Ser						
	305			310		315
						320

Asp Glu Tyr

<210> 228
 <211> 164
 <212> PRT
 <213> homo sapiens

<400> 228

Met Leu Gly Pro Gln Val Trp Ser Ser Val Arg Gln Gly Leu Ser Arg
1 5 10 15

Ser Leu Ser Arg Asn Val Gly Val Trp Ala Ser Gly Glu Gly Lys Lys
20 25 30

Val Asp Ile Ala Gly Ile Tyr Pro Pro Val Thr Thr Pro Phe Thr Ala
35 40 45

Thr Ala Glu Val Asp Tyr Gly Lys Leu Glu Glu Asn Leu His Lys Leu
50 55 60

Gly Thr Phe Pro Phe Arg Gly Ala Val Gly Gly Val Cys Ala Leu Ala
65 70 75 80

Asn Val Leu Gly Ala Gln Val Cys Gln Leu Glu Arg Leu Cys Cys Thr
85 90 95

Gly Gln Trp Glu Asp Ala Gln Lys Leu Gln His Arg Leu Ile Glu Pro
100 105 110

Asn Ala Ala Val Thr Arg Arg Phe Gly Ile Pro Gly Leu Lys Lys Ile
115 120 125

Met Asp Trp Phe Gly Tyr Tyr Gly Gly Pro Cys Arg Ala Pro Leu Gln
130 135 140

Glu Leu Ser Pro Ala Glu Glu Glu Ala Leu Arg Met Asp Phe Thr Ser
145 150 155 160

Asn Gly Trp Leu

<210> 229
<211> 649
<212> PRT
<213> homo sapiens

<400> 229

Met Ile Ser Ala Ala Trp Ser Ile Phe Leu Ile Gly Thr Lys Ile Gly
1 5 10 15

Leu Phe Leu Gln Val Ala Pro Leu Ser Val Met Ala Lys Ser Cys Pro
20 25 30

Ser Val Cys Arg Cys Asp Ala Gly Phe Ile Tyr Cys Asn Asp Arg Phe

35	40	45													
Leu	Thr	Ser	Ile	Pro	Thr	Gly	Ile	Pro	Glu	Asp	Ala	Thr	Thr	Leu	Tyr
50						55					60				
Leu	Gln	Asn	Asn	Gln	Ile	Asn	Asn	Ala	Gly	Ile	Pro	Ser	Asp	Leu	Lys
65					70					75					80
Asn	Leu	Leu	Lys	Val	Glu	Arg	Ile	Tyr	Leu	Tyr	His	Asn	Ser	Leu	Asp
				85					90					95	
Glu	Phe	Pro	Thr	Asn	Leu	Pro	Lys	Tyr	Val	Lys	Glu	Leu	His	Leu	Gln
			100					105					110		
Glu	Asn	Asn	Ile	Arg	Thr	Ile	Thr	Tyr	Asp	Ser	Leu	Ser	Lys	Ile	Pro
	115						120					125			
Tyr	Leu	Glu	Glu	Leu	His	Leu	Asp	Asp	Asn	Ser	Val	Ser	Ala	Val	Ser
130						135					140				
Ile	Glu	Glu	Gly	Ala	Phe	Arg	Asp	Ser	Asn	Tyr	Leu	Arg	Leu	Leu	Phe
145					150					155					160
Leu	Ser	Arg	Asn	His	Leu	Ser	Thr	Ile	Pro	Trp	Gly	Leu	Pro	Arg	Thr
				165					170					175	
Ile	Glu	Glu	Leu	Arg	Leu	Asp	Asp	Asn	Arg	Ile	Ser	Thr	Ile	Ser	Ser
			180					185					190		
Pro	Ser	Leu	Gln	Gly	Leu	Thr	Ser	Leu	Lys	Arg	Leu	Val	Leu	Asp	Gly
		195					200					205			
Asn	Leu	Leu	Asn	Asn	His	Gly	Leu	Gly	Asp	Lys	Val	Phe	Phe	Asn	Leu
210						215					220				
Val	Asn	Leu	Thr	Glu	Leu	Ser	Leu	Val	Arg	Asn	Ser	Leu	Thr	Ala	Ala
225					230					235					240
Pro	Val	Asn	Leu	Pro	Gly	Thr	Asn	Leu	Arg	Lys	Leu	Tyr	Leu	Gln	Asp
				245					250					255	
Asn	His	Ile	Asn	Arg	Val	Pro	Pro	Asn	Ala	Phe	Ser	Tyr	Leu	Arg	Gln
			260					265					270		

Leu Tyr Arg Leu Asp Met Ser Asn Asn Asn Leu Ser Asn Leu Pro Gln
275 280 285

Gly Ile Phe Asp Asp Leu Asp Asn Ile Thr Gln Leu Ile Leu Arg Asn
290 295 300

Asn Pro Trp Tyr Cys Gly Cys Lys Met Lys Trp Val Arg Asp Trp Leu
305 310 315 320

Gln Ser Leu Pro Val Lys Val Asn Val Arg Gly Leu Met Cys Gln Ala
325 330 335

Pro Glu Lys Val Arg Gly Met Ala Ile Lys Asp Leu Asn Ala Glu Leu
340 345 350

Phe Asp Cys Lys Asp Ser Gly Ile Val Ser Thr Ile Gln Ile Thr Thr
355 360 365

Ala Ile Pro Asn Thr Val Tyr Pro Ala Gln Gly Gln Trp Pro Ala Pro
370 375 380

Val Thr Lys Gln Pro Asp Ile Lys Asn Pro Lys Leu Thr Lys Asp His
385 390 395 400

Gln Thr Thr Gly Ser Pro Ser Arg Lys Thr Ile Thr Ile Thr Val Lys
405 410 415

Ser Val Thr Ser Asp Thr Ile His Ile Ser Trp Lys Leu Ala Leu Pro
420 425 430

Met Thr Ala Leu Arg Leu Ser Trp Leu Lys Leu Gly His Ser Pro Ala
435 440 445

Phe Gly Ser Ile Thr Glu Thr Ile Val Thr Gly Glu Arg Ser Glu Tyr
450 455 460

Leu Val Thr Ala Leu Glu Pro Asp Ser Pro Tyr Lys Val Cys Met Val
465 470 475 480

Pro Met Glu Thr Ser Asn Leu Tyr Leu Phe Asp Glu Thr Pro Val Cys
485 490 495

Ile Glu Thr Glu Thr Ala Pro Leu Arg Met Tyr Asn Pro Thr Thr Thr
500 505 510

Leu Asn Arg Glu Gln Glu Lys Glu Pro Tyr Lys Asn Pro Asn Leu Pro
515 520 525

Leu Ala Ala Ile Ile Gly Gly Ala Val Ala Leu Val Thr Ile Ala Leu
530 535 540

Leu Ala Leu Val Cys Trp Tyr Val His Arg Asn Gly Ser Leu Phe Ser
545 550 555 560

Arg Asn Cys Ala Tyr Ser Lys Gly Arg Arg Arg Lys Asp Asp Tyr Ala
565 570 575

Glu Ala Gly Thr Lys Lys Asp Asn Ser Ile Leu Glu Ile Arg Glu Thr
580 585 590

Ser Phe Gln Met Leu Pro Ile Ser Asn Glu Pro Ile Ser Lys Glu Glu
595 600 605

Phe Val Ile His Thr Ile Phe Pro Pro Asn Gly Met Asn Leu Tyr Lys
610 615 620

Asn Asn His Ser Glu Ser Ser Ser Asn Arg Ser Tyr Arg Asp Ser Gly
625 630 635 640

Ile Pro Asp Ser Asp His Ser His Ser
645

<210> 230
<211> 454
<212> PRT
<213> homo sapiens

<400> 230

Met Cys Ala Ala Gln Met Pro Pro Leu Ala His Ile Phe Arg Gly Thr
1 5 10 15

Phe Val His Ser Thr Trp Thr Cys Pro Met Glu Val Leu Arg Asp His
20 25 30

Leu Leu Gly Val Ser Asp Ser Gly Lys Ile Val Phe Leu Glu Glu Ala

35	40	45															
Ser	Gln	Gln	Glu	Lys	Leu	Ala	Lys	Glu	Trp	Cys	Phe	Lys	Pro	Cys	Glu		
50						55					60						
Ile	Arg	Glu	Leu	Ser	His	His	Glu	Phe	Phe	Met	Pro	Gly	Leu	Val	Asp		
65					70					75					80		
Thr	His	Ile	His	Ala	Ser	Gln	Tyr	Ser	Phe	Ala	Gly	Ser	Ser	Ile	Asp		
				85					90					95			
Leu	Pro	Leu	Leu	Glu	Trp	Leu	Thr	Lys	Tyr	Thr	Phe	Pro	Ala	Glu	His		
			100					105					110				
Arg	Phe	Gln	Asn	Ile	Asp	Phe	Ala	Glu	Glu	Val	Tyr	Thr	Arg	Val	Val		
	115						120					125					
Arg	Arg	Thr	Leu	Lys	Asn	Gly	Thr	Thr	Thr	Ala	Cys	Tyr	Phe	Ala	Thr		
	130					135					140						
Ile	His	Thr	Asp	Ser	Ser	Leu	Leu	Leu	Ala	Asp	Ile	Thr	Asp	Lys	Phe		
145					150					155					160		
Gly	Gln	Arg	Ala	Phe	Val	Gly	Lys	Val	Cys	Met	Asp	Leu	Asn	Asp	Thr		
				165					170					175			
Phe	Pro	Glu	Tyr	Lys	Glu	Thr	Thr	Glu	Glu	Ser	Ile	Lys	Glu	Thr	Glu		
		180						185					190				
Arg	Phe	Val	Ser	Glu	Met	Leu	Gln	Lys	Asn	Tyr	Ser	Arg	Val	Lys	Pro		
	195						200					205					
Ile	Val	Thr	Pro	Arg	Phe	Ser	Leu	Ser	Cys	Ser	Glu	Thr	Leu	Met	Gly		
	210					215					220						
Glu	Leu	Gly	Asn	Ile	Ala	Lys	Thr	Arg	Asp	Leu	His	Ile	Gln	Ser	His		
225					230					235					240		
Ile	Ser	Glu	Asn	Arg	Asp	Glu	Val	Glu	Ala	Val	Lys	Asn	Leu	Tyr	Pro		
			245						250					255			
Ser	Tyr	Lys	Asn	Tyr	Thr	Ser	Val	Tyr	Asp	Lys	Asn	Asn	Leu	Leu	Thr		
			260					265					270				

Asn Lys Thr Val Met Ala His Gly Cys Tyr Leu Ser Ala Glu Glu Leu
275 280 285

Asn Val Phe His Glu Arg Gly Ala Ser Ile Ala His Cys Pro Asn Ser
290 295 300

Asn Leu Ser Leu Ser Ser Gly Phe Leu Asn Val Leu Glu Val Leu Lys
305 310 315 320

His Glu Val Lys Ile Gly Leu Gly Thr Asp Val Ala Gly Gly Tyr Ser
325 330 335

Tyr Ser Met Leu Asp Ala Ile Arg Arg Ala Val Met Val Ser Asn Ile
340 345 350

Leu Leu Ile Asn Lys Val Asn Glu Lys Ser Leu Thr Leu Lys Glu Val
355 360 365

Phe Arg Leu Ala Thr Leu Gly Gly Ser Gln Ala Leu Gly Leu Asp Gly
370 375 380

Glu Ile Gly Asn Phe Glu Val Gly Lys Glu Phe Asp Ala Ile Leu Ile
385 390 395 400

Asn Pro Lys Ala Ser Asp Ser Pro Ile Asp Leu Phe Tyr Gly Asp Phe
405 410 415

Phe Gly Asp Ile Ser Glu Ala Val Ile Gln Lys Phe Leu Tyr Leu Gly
420 425 430

Asp Asp Arg Asn Ile Glu Glu Val Tyr Val Gly Gly Lys Gln Val Val
435 440 445

Pro Phe Ser Ser Ser Val
450

<210> 231
<211> 240
<212> PRT
<213> homo sapiens

<400> 231

Met	Thr	Pro	His	Arg	Leu	Leu	Pro	Pro	Leu	Leu	Leu	Leu	Leu	Ala	Leu	
1				5					10					15		
Leu	Leu	Ala	Ala	Ser	Pro	Gly	Gly	Ala	Leu	Ala	Arg	Cys	Pro	Gly	Cys	
			20					25					30			
Gly	Gln	Gly	Val	Gln	Ala	Gly	Cys	Pro	Gly	Gly	Cys	Val	Glu	Glu	Glu	
		35					40					45				
Asp	Gly	Gly	Ser	Pro	Ala	Glu	Gly	Cys	Ala	Glu	Ala	Glu	Gly	Cys	Leu	
	50					55					60					
Arg	Arg	Glu	Gly	Gln	Glu	Cys	Gly	Val	Tyr	Thr	Pro	Asn	Cys	Ala	Pro	
65					70					75					80	
Gly	Leu	Gln	Cys	His	Pro	Pro	Lys	Asp	Asp	Glu	Ala	Pro	Leu	Arg	Ala	
				85					90					95		
Leu	Leu	Leu	Gly	Arg	Gly	Arg	Cys	Leu	Pro	Ala	Arg	Ala	Pro	Ala	Val	
			100					105						110		
Ala	Glu	Glu	Asn	Pro	Lys	Glu	Ser	Lys	Pro	Gln	Ala	Gly	Thr	Ala	Arg	
		115					120					125				
Pro	Gln	Asp	Val	Asn	Arg	Arg	Asp	Gln	Gln	Arg	Asn	Pro	Gly	Thr	Ser	
	130					135					140					
Thr	Thr	Pro	Ser	Gln	Pro	Asn	Ser	Ala	Gly	Val	Gln	Asp	Thr	Glu	Met	
145					150					155					160	
Gly	Pro	Cys	Arg	Arg	His	Leu	Asp	Ser	Val	Leu	Gln	Gln	Leu	Gln	Thr	
				165					170					175		
Glu	Val	Tyr	Arg	Gly	Ala	Gln	Thr	Leu	Tyr	Val	Pro	Asn	Cys	Asp	His	
			180					185					190			
Arg	Gly	Phe	Tyr	Arg	Lys	Arg	Gln	Cys	Arg	Ser	Ser	Gln	Gly	Gln	Arg	
		195					200					205				
Arg	Gly	Pro	Cys	Trp	Cys	Val	Asp	Arg	Met	Gly	Lys	Ser	Leu	Pro	Gly	
	210					215					220					
Ser	Pro	Asp	Gly	Asn	Gly	Ser	Ser	Ser	Cys	Pro	Thr	Gly	Ser	Ser	Gly	

225 230 235 240

<210> 232
 <211> 718
 <212> PRT
 <213> homo sapiens

<400> 232

Met Ile Val Asp Lys Leu Leu Asp Asp Ser Arg Gly Gly Glu Gly Leu
 1 5 10 15

Arg Asp Ala Ala Gly Gly Cys Gly Leu Met Thr Ser Pro Leu Asn Leu
 20 25 30

Ser Tyr Phe Tyr Gly Ala Ser Pro Pro Ala Ala Ala Pro Gly Ala Cys
 35 40 45

Asp Ala Ser Cys Ser Val Leu Gly Pro Ser Ala Pro Gly Ser Pro Gly
 50 55 60

Ser Asp Ser Ser Asp Phe Ser Ser Ala Ser Ser Val Ser Ser Cys Gly
 65 70 75 80

Ala Val Glu Ser Arg Ser Arg Gly Gly Ala Arg Ala Glu Arg Gln Pro
 85 90 95

Val Glu Pro His Met Gly Val Gly Arg Gln Gln Arg Gly Pro Phe Gln
 100 105 110

Gly Val Arg Val Lys Asn Ser Val Lys Glu Leu Leu Leu His Ile Arg
 115 120 125

Ser His Lys Gln Lys Ala Ser Gly Gln Ala Val Asp Asp Phe Lys Thr
 130 135 140

Gln Gly Val Asn Ile Glu Gln Phe Arg Glu Leu Lys Asn Thr Val Ser
 145 150 155 160

Tyr Ser Gly Lys Arg Lys Gly Pro Asp Ser Leu Ser Asp Gly Pro Ala
 165 170 175

Cys Lys Arg Pro Ala Leu Leu His Ser Gln Phe Leu Thr Pro Pro Gln
 180 185 190

Thr Pro Thr Pro Gly Glu Ser Met Glu Asp Val His Leu Asn Glu Pro
195 200 205

Lys Gln Glu Ser Ser Ala Asp Leu Leu Gln Asn Ile Ile Asn Ile Lys
210 215 220

Asn Glu Cys Ser Pro Val Ser Leu Asn Thr Val Gln Val Ser Trp Leu
225 230 235 240

Asn Pro Val Val Val Pro Gln Ser Ser Pro Ala Glu Gln Cys Gln Asp
245 250 255

Phe His Gly Gly Gln Val Phe Ser Pro Pro Gln Lys Cys Gln Pro Phe
260 265 270

Gln Val Arg Gly Ser Gln Gln Met Ile Asp Gln Ala Ser Leu Tyr Gln
275 280 285

Tyr Ser Pro Gln Asn Gln His Val Glu Gln Gln Pro His Tyr Thr His
290 295 300

Lys Pro Thr Leu Glu Tyr Ser Pro Phe Pro Ile Pro Pro Gln Ser Pro
305 310 315 320

Ala Tyr Glu Pro Asn Leu Phe Asp Gly Pro Glu Ser Gln Phe Cys Pro
325 330 335

Asn Gln Ser Leu Val Ser Leu Leu Gly Asp Gln Arg Glu Ser Glu Asn
340 345 350

Ile Ala Asn Pro Met Gln Thr Ser Ser Ser Val Gln Gln Gln Asn Asp
355 360 365

Ala His Leu His Ser Phe Ser Met Met Pro Ser Ser Ala Cys Glu Ala
370 375 380

Met Val Gly His Glu Met Ala Ser Asp Ser Ser Asn Thr Ser Leu Pro
385 390 395 400

Phe Ser Asn Met Gly Asn Pro Met Asn Thr Thr Gln Leu Gly Lys Ser
405 410 415

Leu Phe Gln Trp Gln Val Glu Gln Glu Glu Ser Lys Leu Ala Asn Ile
420 425 430

Ser Gln Asp Gln Phe Leu Ser Lys Asp Ala Asp Gly Asp Thr Phe Leu
435 440 445

His Ile Ala Val Ala Gln Gly Arg Arg Ala Leu Ser Tyr Val Leu Ala
450 455 460

Arg Lys Met Asn Ala Leu His Met Leu Asp Ile Lys Glu His Asn Gly
465 470 475 480

Gln Ser Ala Phe Gln Val Ala Val Ala Ala Asn Gln His Leu Ile Val
485 490 495

Gln Asp Leu Val Asn Ile Gly Ala Gln Val Asn Thr Thr Asp Cys Trp
500 505 510

Gly Arg Thr Pro Leu His Val Cys Ala Glu Lys Gly His Ser Gln Val
515 520 525

Leu Gln Ala Ile Gln Lys Gly Ala Val Gly Ser Asn Gln Phe Val Asp
530 535 540

Leu Glu Ala Thr Asn Tyr Asp Gly Leu Thr Pro Leu His Cys Ala Val
545 550 555 560

Ile Ala His Asn Ala Val Val His Glu Leu Gln Arg Asn Gln Gln Pro
565 570 575

His Ser Pro Glu Val Gln Glu Leu Leu Leu Lys Asn Lys Ser Leu Val
580 585 590

Asp Thr Ile Lys Cys Leu Ile Gln Met Gly Ala Ala Val Glu Ala Lys
595 600 605

Asp Arg Lys Ser Gly Arg Thr Ala Leu His Leu Ala Ala Glu Glu Ala
610 615 620

Asn Leu Glu Leu Ile Arg Leu Phe Leu Glu Leu Pro Ser Cys Leu Ser
625 630 635 640

Phe Val Asn Ala Lys Ala Tyr Asn Gly Asn Thr Ala Leu His Val Ala

645

650

655

Ala Ser Leu Gln Tyr Arg Leu Thr Gln Leu Asp Ala Val Arg Leu Leu
660 665 670

Met Arg Lys Gly Ala Asp Pro Ser Thr Arg Asn Leu Glu Asn Glu Gln
675 680 685

Pro Val His Leu Val Pro Asp Gly Pro Val Gly Glu Gln Ile Arg Arg
690 695 700

Ile Leu Lys Gly Lys Ser Ile Gln Gln Arg Ala Pro Pro Tyr
705 710 715

<210> 233
<211> 220
<212> PRT
<213> homo sapiens

<400> 233

Met Ala Ser Ala Gly Met Gln Ile Leu Gly Val Val Leu Thr Leu Leu
1 5 10 15

Gly Trp Val Asn Gly Leu Val Ser Cys Ala Leu Pro Met Trp Lys Val
20 25 30

Thr Ala Phe Ile Gly Asn Ser Ile Val Val Ala Gln Val Val Trp Glu
35 40 45

Gly Leu Trp Met Ser Cys Val Val Gln Ser Thr Gly Gln Met Gln Cys
50 55 60

Lys Val Tyr Asp Ser Leu Leu Ala Leu Pro Gln Asp Leu Gln Ala Ala
65 70 75 80

Arg Ala Leu Cys Val Ile Ala Leu Leu Val Ala Leu Phe Gly Leu Leu
85 90 95

Val Tyr Leu Ala Gly Ala Lys Cys Thr Thr Cys Val Glu Glu Lys Asp
100 105 110

Ser Lys Ala Arg Leu Val Leu Thr Ser Gly Ile Val Phe Val Ile Ser
115 120 125

Gly Val Leu Thr Leu Ile Pro Val Cys Trp Thr Ala His Ala Ile Ile
130 135 140

Arg Asp Phe Tyr Asn Pro Leu Val Ala Glu Ala Gln Lys Arg Glu Leu
145 150 155 160

Gly Ala Ser Leu Tyr Leu Gly Trp Ala Ala Ser Gly Leu Leu Leu Leu
165 170 175

Gly Gly Gly Leu Leu Cys Cys Thr Cys Pro Ser Gly Gly Ser Gln Gly
180 185 190

Pro Ser His Tyr Met Ala Arg Tyr Ser Thr Ser Ala Pro Ala Ile Ser
195 200 205

Arg Gly Pro Ser Glu Tyr Pro Thr Lys Asn Tyr Val
210 215 220

<210> 234
<211> 736
<212> PRT
<213> homo sapiens

<400> 234

Leu Glu Asp Arg Leu Phe His Gln Phe Lys Arg Phe Gly Glu Ile Ser
1 5 10 15

Leu Arg Leu Ser His Thr Pro Glu Leu Gly Arg Val Ala Tyr Val Asn
20 25 30

Phe Arg His Pro Gln Asp Ala Arg Glu Ala Arg Gln His Ala Leu Ala
35 40 45

Arg Gln Leu Leu Leu Tyr Asp Arg Pro Leu Lys Val Glu Pro Val Tyr
50 55 60

Leu Arg Gly Gly Gly Gly Ser Ser Arg Arg Ser Ser Ser Ser Ala
65 70 75 80

Ala Ala Ser Thr Pro Pro Pro Gly Pro Pro Ala Pro Ala Asp Pro Leu
85 90 95

Gly Tyr Leu Pro Leu His Gly Gly Tyr Gln Tyr Lys Gln Arg Ser Leu

100					105					110					
Ser	Pro	Val	Ala	Ala	Pro	Pro	Leu	Arg	Glu	Pro	Arg	Ala	Arg	His	Ala
		115					120					125			
Ala	Ala	Ala	Phe	Ala	Leu	Asp	Ala	Ala	Ala	Ala	Ala	Ala	Val	Gly	Leu
		130				135						140			
Ser	Arg	Glu	Arg	Ala	Leu	Asp	Tyr	Tyr	Gly	Leu	Tyr	Asp	Asp	Arg	Gly
145					150					155					160
Arg	Pro	Tyr	Gly	Tyr	Pro	Ala	Val	Cys	Glu	Glu	Asp	Leu	Met	Pro	Glu
				165					170						175
Asp	Asp	Gln	Arg	Ala	Thr	Arg	Asn	Leu	Phe	Ile	Gly	Asn	Leu	Asp	His
			180					185					190		
Ser	Val	Ser	Glu	Val	Glu	Leu	Arg	Arg	Ala	Phe	Glu	Lys	Tyr	Gly	Ile
		195					200					205			
Ile	Glu	Glu	Val	Val	Ile	Lys	Arg	Pro	Ala	Arg	Gly	Gln	Gly	Gly	Ala
	210					215					220				
Tyr	Ala	Phe	Leu	Lys	Phe	Gln	Asn	Leu	Asp	Met	Ala	His	Arg	Ala	Lys
225					230					235					240
Val	Ala	Met	Ser	Gly	Arg	Val	Ile	Gly	Arg	Asn	Pro	Ile	Lys	Ile	Gly
				245					250					255	
Tyr	Gly	Lys	Ala	Asn	Pro	Thr	Thr	Arg	Leu	Trp	Val	Gly	Gly	Leu	Gly
			260					265					270		
Pro	Asn	Thr	Ser	Leu	Ala	Ala	Leu	Ala	Arg	Glu	Phe	Asp	Arg	Phe	Gly
		275					280					285			
Ser	Ile	Arg	Thr	Ile	Asp	His	Val	Lys	Gly	Asp	Ser	Phe	Ala	Tyr	Ile
	290					295					300				
Gln	Tyr	Glu	Ser	Leu	Asp	Ala	Ala	Gln	Ala	Ala	Cys	Ala	Lys	Met	Arg
305					310					315					320
Gly	Phe	Pro	Leu	Gly	Gly	Pro	Asp	Arg	Arg	Leu	Arg	Val	Asp	Phe	Ala
				325					330					335	

Lys Ala Glu Glu Thr Arg Tyr Pro Gln Gln Tyr Gln Pro Ser Pro Leu
340 345 350

Pro Val His Tyr Glu Leu Leu Thr Asp Gly Tyr Thr Arg His Arg Asn
355 360 365

Leu Asp Ala Asp Leu Val Arg Asp Arg Thr Pro Pro His Leu Leu Tyr
370 375 380

Ser Asp Arg Asp Arg Thr Phe Leu Glu Gly Asp Trp Thr Ser Pro Ser
385 390 395 400

Lys Ser Ser Asp Arg Arg Asn Ser Leu Glu Gly Tyr Ser Arg Ser Val
405 410 415

Arg Ser Arg Ser Gly Glu Arg Trp Gly Ala Asp Gly Asp Arg Gly Leu
420 425 430

Pro Lys Pro Trp Glu Glu Arg Arg Lys Arg Arg Ser Leu Ser Ser Asp
435 440 445

Arg Gly Arg Thr Thr His Ser Pro Tyr Glu Glu Arg Ser Arg Thr Lys
450 455 460

Gly Ser Gly Gln Gln Ser Glu Arg Gly Ser Asp Arg Thr Pro Glu Arg
465 470 475 480

Ser Arg Lys Glu Asn His Ser Ser Glu Gly Thr Lys Glu Ser Ser Ser
485 490 495

Asn Ser Leu Ser Asn Ser Arg His Gly Ala Glu Glu Arg Gly His His
500 505 510

His His His His Glu Ala Ala Asp Ser Ser His Gly Lys Lys Ala Arg
515 520 525

Asp Ser Glu Arg Asn His Arg Thr Thr Glu Ala Glu Pro Lys Pro Leu
530 535 540

Glu Glu Pro Lys His Glu Thr Lys Lys Leu Lys Asn Leu Ser Glu Tyr
545 550 555 560

Ala Gln Thr Leu Gln Leu Gly Trp Asn Gly Leu Leu Val Leu Lys Asn
565 570 575

Ser Cys Phe Pro Thr Ser Met His Ile Leu Glu Gly Asp Gln Gly Val
580 585 590

Ile Ser Ser Leu Leu Lys Asp His Thr Ser Gly Ser Lys Leu Thr Gln
595 600 605

Leu Lys Ile Ala Gln Arg Leu Arg Leu Asp Gln Pro Lys Leu Asp Glu
610 615 620

Val Thr Arg Arg Ile Lys Gln Gly Ser Pro Asn Gly Tyr Ala Val Leu
625 630 635 640

Leu Ala Thr Gln Ala Thr Pro Ser Gly Leu Gly Thr Glu Gly Met Pro
645 650 655

Thr Val Glu Pro Gly Leu Gln Arg Arg Leu Leu Arg Asn Leu Val Ser
660 665 670

Tyr Leu Lys Gln Lys Gln Ala Ala Gly Val Ile Ser Leu Pro Val Gly
675 680 685

Gly Ser Lys Gly Arg Asp Gly Thr Gly Met Leu Tyr Ala Phe Pro Pro
690 695 700

Cys Asp Phe Ser Gln Gln Tyr Leu Gln Ser Ala Leu Arg Thr Leu Gly
705 710 715 720

Lys Leu Glu Glu Glu His Met Val Ile Val Ile Val Arg Asp Thr Ala
725 730 735

<210> 235
<211> 501
<212> PRT
<213> homo sapiens

<400> 235

Met Ser Ser Ser Gly Thr Pro Asp Leu Pro Val Leu Leu Thr Asp Leu
1 5 10 15

Lys Ile Gln Tyr Thr Lys Ile Phe Ile Asn Asn Glu Trp His Asp Ser

20

25

30

Val Ser Gly Lys Lys Phe Pro Val Phe Asn Pro Ala Thr Glu Glu Glu
 35 40 45

Leu Cys Gln Val Glu Glu Gly Asp Lys Glu Asp Val Asp Lys Ala Val
 50 55 60

Lys Ala Ala Arg Gln Ala Phe Gln Ile Gly Ser Pro Trp Arg Thr Met
 65 70 75 80

Asp Ala Ser Glu Arg Gly Arg Leu Leu Tyr Lys Leu Ala Asp Leu Ile
 85 90 95

Glu Arg Asp Arg Leu Leu Leu Ala Thr Met Glu Ser Met Asn Gly Gly
 100 105 110

Lys Leu Tyr Ser Asn Ala Tyr Leu Asn Asp Leu Ala Gly Cys Ile Lys
 115 120 125

Thr Leu Arg Tyr Cys Ala Gly Trp Ala Asp Lys Ile Gln Gly Arg Thr
 130 135 140

Ile Pro Ile Asp Gly Asn Phe Phe Thr Tyr Thr Arg His Glu Pro Ile
 145 150 155 160

Gly Val Cys Gly Gln Ile Ile Pro Trp Asn Phe Pro Leu Val Met Leu
 165 170 175

Ile Trp Lys Ile Gly Pro Ala Leu Ser Cys Gly Asn Thr Val Val Val
 180 185 190

Lys Pro Ala Glu Gln Thr Pro Leu Thr Ala Leu His Val Ala Ser Leu
 195 200 205

Ile Lys Glu Ala Gly Phe Pro Pro Gly Val Val Asn Ile Val Pro Gly
 210 215 220

Tyr Gly Pro Thr Ala Gly Ala Ala Ile Ser Ser His Met Asp Ile Asp
 225 230 235 240

Lys Val Ala Phe Thr Gly Ser Thr Glu Val Gly Lys Leu Ile Lys Glu
 245 250 255

Ala Ala Gly Lys Ser Asn Leu Lys Arg Val Thr Leu Glu Leu Gly Gly
260 265 270

Lys Ser Pro Cys Ile Val Leu Ala Asp Ala Asp Leu Asp Asn Ala Val
275 280 285

Glu Phe Ala His His Gly Val Phe Tyr His Gln Gly Gln Cys Cys Ile
290 295 300

Ala Ala Ser Arg Ile Phe Val Glu Glu Ser Ile Tyr Asp Glu Phe Val
305 310 315 320

Arg Arg Ser Val Glu Arg Ala Lys Lys Tyr Ile Leu Gly Asn Pro Leu
325 330 335

Thr Pro Gly Val Thr Gln Gly Pro Gln Ile Asp Lys Glu Gln Tyr Asp
340 345 350

Lys Ile Leu Asp Leu Ile Glu Ser Gly Lys Lys Glu Gly Ala Lys Leu
355 360 365

Glu Cys Gly Gly Gly Pro Trp Gly Asn Lys Gly Tyr Phe Val Gln Pro
370 375 380

Thr Val Phe Ser Asn Val Thr Asp Glu Met Arg Ile Ala Lys Glu Glu
385 390 395 400

Ile Phe Gly Pro Val Gln Gln Ile Met Lys Phe Lys Ser Leu Asp Asp
405 410 415

Val Ile Lys Arg Ala Asn Asn Thr Phe Tyr Gly Leu Ser Ala Gly Val
420 425 430

Phe Thr Lys Asp Ile Asp Lys Ala Ile Thr Ile Ser Ser Ala Leu Gln
435 440 445

Ala Gly Thr Val Trp Val Asn Cys Tyr Gly Val Val Ser Ala Gln Cys
450 455 460

Pro Phe Gly Gly Phe Lys Met Ser Gly Asn Gly Arg Glu Leu Gly Glu
465 470 475 480

Tyr Gly Phe His Glu Tyr Thr Glu Val Lys Thr Val Thr Val Lys Ile
485 490 495

Ser Gln Lys Asn Ser
500

<210> 236
<211> 124
<212> PRT
<213> homo sapiens

<400> 236

Met Pro Ala Cys Arg Leu Gly Pro Leu Ala Ala Ala Leu Leu Leu Ser
1 5 10 15

Leu Leu Leu Phe Gly Phe Thr Leu Val Ser Gly Thr Gly Ala Glu Lys
20 25 30

Thr Gly Val Cys Pro Glu Leu Gln Ala Asp Gln Asn Cys Thr Gln Glu
35 40 45

Cys Val Ser Asp Ser Glu Cys Ala Asp Asn Leu Lys Cys Cys Ser Ala
50 55 60

Gly Cys Ala Thr Phe Cys Ser Leu Pro Asn Asp Lys Glu Gly Ser Cys
65 70 75 80

Pro Gln Val Asn Ile Asn Phe Pro Gln Leu Gly Leu Cys Arg Asp Gln
85 90 95

Cys Gln Val Asp Ser Gln Cys Pro Gly Gln Met Lys Cys Cys Arg Asn
100 105 110

Gly Cys Gly Lys Val Ser Cys Val Thr Pro Asn Phe
115 120

<210> 237
<211> 102
<212> PRT
<213> homo sapiens

<400> 237

Met Pro Ala Cys Arg Leu Gly Pro Leu Ala Ala Ala Leu Leu Leu Ser
1 5 10 15

Leu Leu Leu Phe Gly Phe Thr Leu Val Ser Gly Thr Gly Ala Glu Lys
20 25 30

Thr Gly Val Cys Pro Glu Leu Gln Ala Asp Gln Asn Cys Thr Gln Glu
35 40 45

Cys Val Ser Asp Ser Glu Cys Ala Asp Asn Leu Lys Cys Cys Ser Ala
50 55 60

Gly Cys Ala Thr Phe Cys Ser Leu Pro Asn Ala Leu Phe His Trp His
65 70 75 80

Leu Lys Thr Arg Arg Leu Trp Glu Ile Ser Gly Pro Arg Pro Arg Arg
85 90 95

Pro Thr Trp Asp Ser Ser
100

<210> 238
<211> 76
<212> PRT
<213> homo sapiens

<400> 238

Met Pro Ala Cys Arg Leu Gly Pro Leu Ala Ala Ala Leu Leu Leu Ser
1 5 10 15

Leu Leu Leu Phe Gly Phe Thr Leu Val Ser Asp Lys Glu Gly Ser Cys
20 25 30

Pro Gln Val Asn Ile Asn Phe Pro Gln Leu Gly Leu Cys Arg Asp Gln
35 40 45

Cys Gln Val Asp Ser Gln Cys Pro Gly Gln Met Lys Cys Cys Arg Asn
50 55 60

Gly Cys Gly Lys Val Ser Cys Val Thr Pro Asn Phe
65 70 75

<210> 239
<211> 165
<212> PRT
<213> homo sapiens

<400> 239

Gly Pro Glu Gly Ser Arg Gly Asp Arg Trp Gly Thr Arg Glu Ala Gly
1 5 10 15

Ala Gly Arg Arg Cys Ser His Gly Gly Ala Arg Pro Ala Gly Leu Gly
20 25 30

Asn Glu Gly Leu Gly Leu Gly Gly Asp Pro Asp His Thr Asp Thr Gly
35 40 45

Ser Arg Ser Lys Gln Arg Ile Asn Asn Trp Lys Glu Ser Lys His Lys
50 55 60

Val Ile Met Ala Ser Ala Ser Ala Arg Gly Asn Gln Asp Lys Asp Ala
65 70 75 80

His Phe Pro Pro Pro Ser Lys Gln Ser Leu Leu Phe Cys Pro Lys Ser
85 90 95

Lys Leu His Ile His Arg Ala Glu Ile Ser Lys Ile Met Arg Glu Cys
100 105 110

Gln Glu Glu Ser Phe Trp Lys Arg Ala Leu Pro Phe Ser Leu Val Ser
115 120 125

Met Leu Val Thr Gln Gly Leu Val Tyr Gln Gly Tyr Leu Ala Ala Asn
130 135 140

Ser Arg Phe Gly Ser Leu Pro Lys Val Ala Arg Thr Ala Ser Leu Pro
145 150 155 160

Val Arg Asn Ala Lys
165

<210> 240

<211> 635

<212> PRT

<213> homo sapiens

<400> 240

Met Ala Lys Lys Ser Ala Glu Asn Gly Ile Tyr Ser Val Ser Gly Asp
1 5 10 15

Glu Lys Lys Gly Pro Leu Ile Ala Pro Gly Pro Asp Gly Ala Pro Ala
20 25 30

Lys Gly Asp Gly Pro Val Gly Leu Gly Thr Pro Gly Gly Arg Leu Ala
35 40 45

Val Pro Pro Arg Glu Thr Trp Thr Arg Gln Met Asp Phe Ile Met Ser
50 55 60

Cys Val Gly Phe Ala Val Gly Leu Gly Asn Val Trp Arg Phe Pro Tyr
65 70 75 80

Leu Cys Tyr Lys Asn Gly Gly Gly Val Phe Leu Ile Pro Tyr Val Leu
85 90 95

Ile Ala Leu Val Gly Gly Ile Pro Ile Phe Phe Leu Glu Ile Ser Leu
100 105 110

Gly Gln Phe Met Lys Ala Gly Ser Ile Asn Val Trp Asn Ile Cys Pro
115 120 125

Leu Phe Lys Gly Leu Gly Tyr Ala Ser Met Val Ile Val Phe Tyr Cys
130 135 140

Asn Thr Tyr Tyr Ile Met Val Leu Ala Trp Gly Phe Tyr Tyr Leu Val
145 150 155 160

Lys Ser Phe Thr Thr Thr Leu Pro Trp Ala Thr Cys Gly His Thr Trp
165 170 175

Asn Thr Pro Asp Cys Val Glu Ile Phe Arg His Glu Asp Cys Ala Asn
180 185 190

Ala Ser Leu Ala Asn Leu Thr Cys Asp Gln Leu Ala Asp Arg Arg Ser
195 200 205

Pro Val Ile Glu Phe Trp Glu Asn Lys Val Leu Arg Leu Ser Gly Gly
210 215 220

Leu Glu Val Pro Gly Ala Leu Asn Trp Glu Val Thr Leu Cys Leu Leu
225 230 235 240

Ala Cys Trp Val Leu Val Tyr Phe Cys Val Trp Lys Gly Val Lys Ser
 245 250 255

Thr Gly Lys Ile Val Tyr Phe Thr Ala Thr Phe Pro Tyr Val Val Leu
 260 265 270

Val Val Leu Leu Val Arg Gly Val Leu Leu Pro Gly Ala Leu Asp Gly
 275 280 285

Ile Ile Tyr Tyr Leu Lys Pro Asp Trp Ser Lys Leu Gly Ser Pro Gln
 290 295 300

Val Trp Ile Asp Ala Gly Thr Gln Ile Phe Phe Ser Tyr Ala Ile Gly
 305 310 315 320

Leu Gly Ala Leu Thr Ala Leu Gly Ser Tyr Asn Arg Phe Asn Asn Asn
 325 330 335

Cys Tyr Lys Asp Ala Ile Ile Leu Ala Leu Ile Asn Ser Gly Thr Ser
 340 345 350

Phe Phe Ala Gly Phe Val Val Phe Ser Ile Leu Gly Phe Met Ala Ala
 355 360 365

Glu Gln Gly Val His Ile Ser Lys Val Ala Glu Ser Gly Pro Gly Leu
 370 375 380

Ala Phe Ile Ala Tyr Pro Arg Ala Val Thr Leu Met Pro Val Ala Pro
 385 390 395 400

Leu Trp Ala Ala Leu Phe Phe Phe Met Leu Leu Leu Leu Gly Leu Asp
 405 410 415

Ser Gln Phe Val Gly Val Glu Gly Phe Ile Thr Gly Leu Leu Asp Leu
 420 425 430

Leu Pro Ala Ser Tyr Tyr Phe Arg Phe Gln Arg Glu Ile Ser Val Ala
 435 440 445

Leu Cys Cys Ala Leu Cys Phe Val Ile Asp Leu Ser Met Val Thr Asp
 450 455 460

Gly Gly Met Tyr Val Phe Gln Leu Phe Asp Tyr Tyr Ser Ala Ser Gly

465 470 475 480

Thr Thr Leu Leu Trp Gln Ala Phe Trp Glu Cys Val Val Val Ala Trp
485 490 495

Val Tyr Gly Ala Asp Arg Phe Met Asp Asp Ile Ala Cys Met Ile Gly
500 505 510

Tyr Arg Pro Cys Pro Trp Met Lys Trp Cys Trp Ser Phe Phe Thr Pro
515 520 525

Leu Val Cys Met Gly Ile Phe Ile Phe Asn Val Val Tyr Tyr Glu Pro
530 535 540

Leu Val Tyr Asn Asn Thr Tyr Val Tyr Pro Trp Trp Gly Glu Ala Met
545 550 555 560

Gly Trp Ala Phe Ala Leu Ser Ser Met Leu Cys Val Pro Leu His Leu
565 570 575

Leu Gly Cys Leu Leu Arg Ala Lys Gly Thr Met Ala Glu Arg Trp Gln
580 585 590

His Leu Thr Gln Pro Ile Trp Gly Leu His His Leu Glu Tyr Arg Ala
595 600 605

Gln Asp Ala Asp Val Arg Gly Leu Thr Thr Leu Thr Pro Val Ser Glu
610 615 620

Ser Ser Lys Val Val Val Val Glu Ser Val Met
625 630 635

<210> 241
<211> 805
<212> PRT
<213> homo sapiens

<400> 241

Met Ser Ser Ser Ser Trp Leu Leu Leu Ser Leu Val Ala Val Thr Ala
1 5 10 15

Ala Gln Ser Thr Ile Glu Glu Gln Ala Lys Thr Phe Leu Asp Lys Phe
20 25 30

Asn His Glu Ala Glu Asp Leu Phe Tyr Gln Ser Ser Leu Ala Ser Trp
35 40 45

Asn Tyr Asn Thr Asn Ile Thr Glu Glu Asn Val Gln Asn Met Asn Asn
50 55 60

Ala Gly Asp Lys Trp Ser Ala Phe Leu Lys Glu Gln Ser Thr Leu Ala
65 70 75 80

Gln Met Tyr Pro Leu Gln Glu Ile Gln Asn Leu Thr Val Lys Leu Gln
85 90 95

Leu Gln Ala Leu Gln Gln Asn Gly Ser Ser Val Leu Ser Glu Asp Lys
100 105 110

Ser Lys Arg Leu Asn Thr Ile Leu Asn Thr Met Ser Thr Ile Tyr Ser
115 120 125

Thr Gly Lys Val Cys Asn Pro Asp Asn Pro Gln Glu Cys Leu Leu Leu
130 135 140

Glu Pro Gly Leu Asn Glu Ile Met Ala Asn Ser Leu Asp Tyr Asn Glu
145 150 155 160

Arg Leu Trp Ala Trp Glu Ser Trp Arg Ser Glu Val Gly Lys Gln Leu
165 170 175

Arg Pro Leu Tyr Glu Glu Tyr Val Val Leu Lys Asn Glu Met Ala Arg
180 185 190

Ala Asn His Tyr Glu Asp Tyr Gly Asp Tyr Trp Arg Gly Asp Tyr Glu
195 200 205

Val Asn Gly Val Asp Gly Tyr Asp Tyr Ser Arg Gly Gln Leu Ile Glu
210 215 220

Asp Val Glu His Thr Phe Glu Glu Ile Lys Pro Leu Tyr Glu His Leu
225 230 235 240

His Ala Tyr Val Arg Ala Lys Leu Met Asn Ala Tyr Pro Ser Tyr Ile
245 250 255

Ser Pro Ile Gly Cys Leu Pro Ala His Leu Leu Gly Asp Met Trp Gly
260 265 270

Arg Phe Trp Thr Asn Leu Tyr Ser Leu Thr Val Pro Phe Gly Gln Lys
275 280 285

Pro Asn Ile Asp Val Thr Asp Ala Met Val Asp Gln Ala Trp Asp Ala
290 295 300

Gln Arg Ile Phe Lys Glu Ala Glu Lys Phe Phe Val Ser Val Gly Leu
305 310 315 320

Pro Asn Met Thr Gln Gly Phe Trp Glu Asn Ser Met Leu Thr Asp Pro
325 330 335

Gly Asn Val Gln Lys Ala Val Cys His Pro Thr Ala Trp Asp Leu Gly
340 345 350

Lys Gly Asp Phe Arg Ile Leu Met Cys Thr Lys Val Thr Met Asp Asp
355 360 365

Phe Leu Thr Ala His His Glu Met Gly His Ile Gln Tyr Asp Met Ala
370 375 380

Tyr Ala Ala Gln Pro Phe Leu Leu Arg Asn Gly Ala Asn Glu Gly Phe
385 390 395 400

His Glu Ala Val Gly Glu Ile Met Ser Leu Ser Ala Ala Thr Pro Lys
405 410 415

His Leu Lys Ser Ile Gly Leu Leu Ser Pro Asp Phe Gln Glu Asp Asn
420 425 430

Glu Thr Glu Ile Asn Phe Leu Leu Lys Gln Ala Leu Thr Ile Val Gly
435 440 445

Thr Leu Pro Phe Thr Tyr Met Leu Glu Lys Trp Arg Trp Met Val Phe
450 455 460

Lys Gly Glu Ile Pro Lys Asp Gln Trp Met Lys Lys Trp Trp Glu Met
465 470 475 480

Lys Arg Glu Ile Val Gly Val Val Glu Pro Val Pro His Asp Glu Thr

485

490

495

Tyr Cys Asp Pro Ala Ser Leu Phe His Val Ser Asn Asp Tyr Ser Phe
 500 505 510

Ile Arg Tyr Tyr Thr Arg Thr Leu Tyr Gln Phe Gln Phe Gln Glu Ala
 515 520 525

Leu Cys Gln Ala Ala Lys His Glu Gly Pro Leu His Lys Cys Asp Ile
 530 535 540

Ser Asn Ser Thr Glu Ala Gly Gln Lys Leu Phe Asn Met Leu Arg Leu
 545 550 555 560

Gly Lys Ser Glu Pro Trp Thr Leu Ala Leu Glu Asn Val Val Gly Ala
 565 570 575

Lys Asn Met Asn Val Arg Pro Leu Leu Asn Tyr Phe Glu Pro Leu Phe
 580 585 590

Thr Trp Leu Lys Asp Gln Asn Lys Asn Ser Phe Val Gly Trp Ser Thr
 595 600 605

Asp Trp Ser Pro Tyr Ala Asp Gln Ser Ile Lys Val Arg Ile Ser Leu
 610 615 620

Lys Ser Ala Leu Gly Asp Lys Ala Tyr Glu Trp Asn Asp Asn Glu Met
 625 630 635 640

Tyr Leu Phe Arg Ser Ser Val Ala Tyr Ala Met Arg Gln Tyr Phe Leu
 645 650 655

Lys Val Lys Asn Gln Met Ile Leu Phe Gly Glu Glu Asp Val Arg Val
 660 665 670

Ala Asn Leu Lys Pro Arg Ile Ser Phe Asn Phe Phe Val Thr Ala Pro
 675 680 685

Lys Asn Val Ser Asp Ile Ile Pro Arg Thr Glu Val Glu Lys Ala Ile
 690 695 700

Arg Met Ser Arg Ser Arg Ile Asn Asp Ala Phe Arg Leu Asn Asp Asn
 705 710 715 720

Ser Leu Glu Phe Leu Gly Ile Gln Pro Thr Leu Gly Pro Pro Asn Gln
725 730 735

Pro Pro Val Ser Ile Trp Leu Ile Val Phe Gly Val Val Met Gly Val
740 745 750

Ile Val Val Gly Ile Val Ile Leu Ile Phe Thr Gly Ile Arg Asp Arg
755 760 765

Lys Lys Lys Asn Lys Ala Arg Ser Gly Glu Asn Pro Tyr Ala Ser Ile
770 775 780

Asp Ile Ser Lys Gly Glu Asn Asn Pro Gly Phe Gln Asn Thr Asp Asp
785 790 795 800

Val Gln Thr Ser Phe
805

<210> 242
<211> 853
<212> PRT
<213> homo sapiens

<400> 242

Met Gly Ser Asp Arg Ala Arg Lys Gly Gly Gly Gly Pro Lys Asp Phe
1 5 10 15

Gly Ala Gly Leu Lys Tyr Asn Ser Arg His Glu Lys Val Asn Gly Leu
20 25 30

Glu Glu Gly Val Glu Phe Leu Pro Val Asn Asn Val Lys Lys Val Glu
35 40 45

Lys His Gly Pro Gly Arg Trp Val Val Leu Ala Ala Val Leu Ile Gly
50 55 60

Leu Leu Leu Val Leu Leu Gly Ile Gly Phe Leu Val Trp His Leu Gln
65 70 75 80

Tyr Arg Asp Val Arg Val Gln Lys Val Phe Asn Gly Tyr Met Arg Ile
85 90 95

Thr Asn Glu Asn Phe Val Asp Ala Tyr Glu Asn Ser Asn Ser Thr Glu
100 105 110

Phe Val Ser Leu Ala Ser Lys Val Lys Asp Ala Leu Lys Leu Leu Tyr
115 120 125

Ser Gly Val Pro Phe Leu Gly Pro Tyr His Lys Glu Ser Ala Val Thr
130 135 140

Ala Phe Ser Glu Gly Ser Val Ile Ala Tyr Tyr Trp Ser Glu Phe Ser
145 150 155 160

Ile Pro Gln His Leu Val Glu Glu Ala Glu Arg Val Met Ala Glu Glu
165 170 175

Arg Val Val Met Leu Pro Pro Arg Ala Arg Ser Leu Lys Ser Phe Val
180 185 190

Val Thr Ser Val Val Ala Phe Pro Thr Asp Ser Lys Thr Val Gln Arg
195 200 205

Thr Gln Asp Asn Ser Cys Ser Phe Gly Leu Ala Arg Gly Val Glu Leu
210 215 220

Met Arg Phe Thr Thr Pro Gly Phe Pro Asp Ser Pro Tyr Pro Ala His
225 230 235 240

Ala Cys Gln Trp Ala Leu Arg Gly Asp Ala Asp Ser Val Leu Ser Leu
245 250 255

Thr Phe Arg Ser Phe Asp Leu Ala Ser Cys Asp Glu Arg Gly Ser Asp
260 265 270

Leu Val Thr Val Tyr Asn Thr Leu Ser Pro Met Glu Pro His Ala Leu
275 280 285

Val Gln Leu Cys Gly Thr Tyr Pro Pro Ser Tyr Asn Leu Thr Phe His
290 295 300

Ser Ser Gln Asn Val Leu Leu Ile Thr Leu Ile Thr Asn Thr Glu Arg
305 310 315 320

Arg His Pro Gly Phe Glu Ala Thr Phe Phe Gln Leu Pro Arg Met Ser

				325						330						335
Ser	Cys	Gly	Gly	Arg	Leu	Arg	Lys	Ala	Gln	Gly	Thr	Phe	Asn	Ser	Pro	
			340					345					350			
Tyr	Tyr	Pro	Gly	His	Tyr	Pro	Pro	Asn	Ile	Asp	Cys	Thr	Trp	Asn	Ile	
		355					360					365				
Glu	Val	Pro	Asn	Asn	Gln	His	Val	Lys	Val	Arg	Phe	Lys	Phe	Phe	Tyr	
	370					375					380					
Leu	Leu	Glu	Pro	Gly	Val	Pro	Ala	Gly	Thr	Cys	Pro	Lys	Asp	Tyr	Val	
385					390					395					400	
Glu	Ile	Asn	Gly	Glu	Lys	Tyr	Cys	Gly	Glu	Arg	Ser	Gln	Phe	Val	Val	
				405					410					415		
Thr	Ser	Asn	Ser	Asn	Lys	Ile	Thr	Val	Arg	Phe	His	Ser	Asp	Gln	Ser	
			420					425					430			
Tyr	Thr	Asp	Thr	Gly	Phe	Leu	Ala	Glu	Tyr	Leu	Ser	Tyr	Asp	Ser	Ser	
		435					440					445				
Asp	Pro	Cys	Pro	Gly	Gln	Phe	Thr	Cys	Arg	Thr	Gly	Arg	Cys	Ile	Arg	
	450					455					460					
Lys	Glu	Leu	Arg	Cys	Asp	Gly	Trp	Ala	Asp	Cys	Thr	Asp	His	Ser	Asp	
465					470					475					480	
Glu	Leu	Asn	Cys	Ser	Cys	Asp	Ala	Gly	His	Gln	Phe	Thr	Cys	Lys	Asn	
				485					490					495		
Lys	Phe	Cys	Lys	Pro	Leu	Phe	Trp	Val	Cys	Asp	Ser	Val	Asn	Asp	Cys	
			500					505					510			
Gly	Asp	Asn	Ser	Asp	Glu	Gln	Gly	Cys	Ser	Cys	Pro	Ala	Gln	Thr	Phe	
			515				520					525				
Arg	Cys	Ser	Asn	Gly	Lys	Cys	Leu	Ser	Lys	Ser	Gln	Gln	Cys	Asn	Gly	
	530					535					540					
Lys	Asp	Asp	Cys	Gly	Asp	Gly	Ser	Asp	Glu	Ala	Ser	Cys	Pro	Lys	Val	
545					550					555					560	

Asn Val Val Thr Cys Thr Lys His Thr Tyr Arg Cys Leu Asn Gly Leu
565 570 575

Cys Leu Ser Lys Gly Asn Pro Glu Cys Asp Gly Lys Glu Asp Cys Ser
580 585 590

Asp Gly Ser Asp Glu Lys Asp Cys Asp Cys Gly Leu Arg Ser Phe Thr
595 600 605

Arg Gln Ala Arg Val Val Gly Gly Thr Asp Ala Asp Glu Gly Glu Trp
610 615 620

Pro Trp Gln Val Ser Leu His Ala Leu Gly Gln Gly His Ile Cys Gly
625 630 635 640

Ala Ser Leu Ile Ser Pro Asn Trp Leu Val Ser Ala Ala His Cys Tyr
645 650 655

Ile Asp Asp Arg Gly Phe Arg Tyr Ser Asp Pro Thr Gln Trp Thr Ala
660 665 670

Phe Leu Gly Leu His Asp Gln Ser Gln Arg Ser Ala Pro Gly Val Gln
675 680 685

Glu Arg Arg Leu Lys Arg Ile Ile Ser His Pro Phe Phe Asn Asp Phe
690 695 700

Thr Phe Asp Tyr Asp Ile Ala Leu Leu Glu Leu Glu Lys Pro Ala Glu
705 710 715 720

Tyr Ser Ser Met Val Arg Pro Ile Cys Leu Pro Asp Ala Ser His Val
725 730 735

Phe Pro Ala Gly Lys Ala Ile Trp Val Thr Gly Trp Gly His Thr Gln
740 745 750

Tyr Gly Gly Thr Gly Ala Leu Ile Leu Gln Lys Gly Glu Ile Arg Val
755 760 765

Ile Asn Gln Thr Thr Cys Glu Asn Leu Leu Pro Gln Gln Ile Thr Pro
770 775 780

Arg Met Met Cys Val Gly Phe Leu Ser Gly Gly Val Asp Ser Cys Gln
785 790 795 800

Gly Asp Ser Gly Gly Pro Leu Ser Ser Val Glu Ala Asp Gly Arg Ile
805 810 815

Phe Gln Ala Gly Val Val Ser Trp Gly Asp Gly Cys Ala Gln Arg Asn
820 825 830

Lys Pro Gly Val Tyr Thr Arg Leu Pro Leu Phe Arg Asp Trp Ile Lys
835 840 845

Glu Asn Thr Gly Val
850

<210> 243
<211> 1235
<212> PRT
<213> homo sapiens

<400> 243

Met Arg Leu Leu Leu Leu Val Pro Leu Leu Leu Ala Pro Ala Pro Gly
1 5 10 15

Ser Ser Ala Pro Lys Val Arg Arg Gln Ser Asp Thr Trp Gly Pro Trp
20 25 30

Ser Gln Trp Ser Pro Cys Ser Arg Thr Cys Gly Gly Gly Val Ser Phe
35 40 45

Arg Glu Arg Pro Cys Tyr Ser Gln Arg Arg Asp Gly Gly Ser Ser Cys
50 55 60

Val Gly Pro Ala Arg Ser His Arg Ser Cys Arg Thr Glu Ser Cys Pro
65 70 75 80

Asp Gly Ala Arg Asp Phe Arg Ala Glu Gln Cys Ala Glu Phe Asp Gly
85 90 95

Ala Glu Phe Gln Gly Arg Arg Tyr Arg Trp Leu Pro Tyr Tyr Ser Ala
100 105 110

Pro Asn Lys Cys Glu Leu Asn Cys Ile Pro Lys Gly Glu Asn Phe Tyr

115					120					125					
Tyr	Lys	His	Arg	Glu	Ala	Val	Val	Asp	Gly	Thr	Pro	Cys	Glu	Pro	Gly
130						135					140				
Lys	Arg	Asp	Val	Cys	Val	Asp	Gly	Ser	Cys	Arg	Val	Val	Gly	Cys	Asp
145					150					155					160
His	Glu	Leu	Asp	Ser	Ser	Lys	Gln	Glu	Asp	Lys	Cys	Leu	Arg	Cys	Gly
				165					170					175	
Gly	Asp	Gly	Thr	Thr	Cys	Tyr	Pro	Val	Ala	Gly	Thr	Phe	Asp	Ala	Asn
			180					185					190		
Asp	Leu	Ser	Arg	Gly	Tyr	Asn	Gln	Ile	Leu	Ile	Val	Pro	Met	Gly	Ala
		195					200					205			
Thr	Ser	Ile	Leu	Ile	Asp	Glu	Ala	Ala	Ala	Ser	Arg	Asn	Phe	Leu	Ala
	210					215					220				
Val	Lys	Asn	Val	Arg	Gly	Glu	Tyr	Tyr	Leu	Asn	Gly	His	Trp	Thr	Ile
225					230					235					240
Glu	Ala	Ala	Arg	Ala	Leu	Pro	Ala	Ala	Ser	Thr	Ile	Leu	His	Tyr	Glu
				245					250					255	
Arg	Gly	Ala	Glu	Gly	Asp	Leu	Ala	Pro	Glu	Arg	Leu	His	Ala	Arg	Gly
			260					265					270		
Pro	Thr	Ser	Glu	Pro	Leu	Val	Ile	Glu	Leu	Ile	Ser	Gln	Glu	Pro	Asn
		275					280					285			
Pro	Gly	Val	His	Tyr	Glu	Tyr	His	Leu	Pro	Leu	Arg	Arg	Pro	Ser	Pro
	290					295					300				
Gly	Phe	Ser	Trp	Ser	His	Gly	Ser	Trp	Ser	Asp	Cys	Ser	Ala	Glu	Cys
305					310					315					320
Gly	Gly	Gly	His	Gln	Ser	Arg	Leu	Val	Phe	Cys	Thr	Ile	Asp	His	Glu
				325					330					335	
Ala	Tyr	Pro	Asp	His	Met	Cys	Gln	Arg	Gln	Pro	Arg	Pro	Ala	Asp	Arg
			340					345					350		

Arg Ser Cys Asn Leu His Pro Cys Pro Glu Thr Lys Arg Thr Ser Tyr
355 360 365

Leu His Arg Pro Gly Ala Trp Arg Leu Ala Gly Ala Gln Arg Val Cys
370 375 380

Gly Asn Ser Trp Lys Ala Gly Pro Trp Ala Pro Cys Ser Ala Ser Cys
385 390 395 400

Gly Gly Gly Ser Gln Ser Arg Ser Val Tyr Cys Ile Ser Ser Asp Gly
405 410 415

Ala Gly Ile Gln Glu Ala Val Glu Glu Ala Glu Cys Ala Gly Leu Pro
420 425 430

Gly Lys Pro Pro Ala Ile Gln Ala Cys Asn Leu Gln Arg Cys Ala Ala
435 440 445

Trp Ser Pro Glu Pro Trp Gly Glu Cys Ser Val Ser Cys Gly Val Gly
450 455 460

Val Arg Lys Arg Ser Val Thr Cys Arg Gly Glu Arg Gly Ser Leu Leu
465 470 475 480

His Thr Ala Ala Cys Ser Leu Glu Asp Arg Pro Pro Leu Thr Glu Pro
485 490 495

Cys Val His Glu Asp Cys Pro Leu Leu Ser Asp Gln Ala Trp His Val
500 505 510

Gly Thr Trp Gly Leu Cys Ser Lys Ser Cys Ser Ser Gly Thr Arg Arg
515 520 525

Arg Gln Val Ile Cys Ala Ile Gly Pro Pro Ser His Cys Gly Ser Leu
530 535 540

Gln His Ser Lys Pro Val Asp Val Glu Pro Cys Asn Thr Gln Pro Cys
545 550 555 560

His Leu Pro Gln Glu Val Pro Ser Met Gln Asp Val His Thr Pro Ala
565 570 575

Ser Asn Pro Trp Met Pro Leu Gly Pro Gln Glu Ser Pro Ala Ser Ala
580 585 590

Ala Pro Ile Pro Ala Thr Pro Ala Val Gly Leu Arg Ala Pro Arg Leu
595 600 605

Gln Thr Gln Ser Ser Arg Val Leu Pro Arg Trp Pro His Gly Ile Ser
610 615 620

Arg Ala Ser Val Ala Arg Leu Pro Trp Gly Pro Leu Ser Ala Glu Gln
625 630 635 640

Val His Asn Thr His Gln Pro Gln Ala Gln Gln Asn Glu Pro Ser Glu
645 650 655

Cys Arg Gly Ser Gln Phe Gly Cys Cys Tyr Asp Asn Val Ala Thr Ala
660 665 670

Ala Gly Pro Leu Gly Glu Gly Cys Val Gly Gln Pro Ser His Ala Tyr
675 680 685

Pro Val Arg Cys Leu Leu Pro Ser Ala His Gly Ser Cys Ala Asp Trp
690 695 700

Ala Ala Arg Trp Tyr Phe Val Ala Ser Val Gly Gln Cys Asn Arg Phe
705 710 715 720

Trp Tyr Gly Gly Cys His Gly Asn Ala Asn Asn Phe Ala Ser Glu Gln
725 730 735

Glu Cys Met Ser Ser Cys Gln Gly Ser Leu His Gly Pro Arg Arg Pro
740 745 750

Gln Pro Gly Ala Ser Gly Arg Ser Thr His Thr Asp Gly Gly Gly Ser
755 760 765

Ser Pro Ala Gly Glu Gln Glu Pro Ser Gln His Arg Thr Gly Ala Ala
770 775 780

Val Gln Arg Lys Pro Trp Pro Ser Gly Gly Leu Trp Arg Gln Asp Gln
785 790 795 800

Gln Pro Gly Pro Gly Glu Ala Pro His Thr Gln Ala Phe Gly Glu Trp
805 810 815

Pro Trp Gly Gln Glu Leu Gly Ser Arg Ala Pro Gly Leu Gly Gly Asp
820 825 830

Ala Gly Ser Pro Ala Pro Pro Phe His Ser Ser Ser Tyr Arg Ile Ser
835 840 845

Leu Ala Gly Val Glu Pro Ser Leu Val Gln Ala Ala Leu Gly Gln Leu
850 855 860

Val Arg Leu Ser Cys Ser Asp Asp Thr Ala Pro Glu Ser Gln Ala Ala
865 870 875 880

Trp Gln Lys Asp Gly Gln Pro Ile Ser Ser Asp Arg His Arg Leu Gln
885 890 895

Phe Asp Gly Ser Leu Ile Ile His Pro Leu Gln Ala Glu Asp Ala Gly
900 905 910

Thr Tyr Ser Cys Gly Ser Thr Arg Pro Gly Arg Asp Ser Gln Lys Ile
915 920 925

Gln Leu Arg Ile Ile Gly Leu Cys Pro His Pro Ile His His Ser His
930 935 940

Leu Val Ser Pro Gly Leu Met Thr Gly Gly Asp Met Ala Val Leu Ser
945 950 955 960

Glu Ala Glu Leu Ser Arg Phe Pro Gln Pro Arg Asp Pro Ala Gln Asp
965 970 975

Phe Gly Gln Ala Gly Ala Ala Gly Pro Leu Gly Ala Ile Pro Ser Ser
980 985 990

His Pro Gln Pro Ala Asn Arg Leu Arg Leu Asp Gln Asn Gln Pro Arg
995 1000 1005

Val Val Asp Ala Ser Pro Gly Gln Arg Ile Arg Met Thr Cys Arg
1010 1015 1020

Ala Glu Gly Phe Pro Pro Pro Ala Ile Glu Trp Gln Arg Asp Gly

1025		1030		1035
Gln Pro Val Ser Ser Pro Arg His Gln Leu Gln Pro Asp Gly Ser				
1040		1045		1050
Leu Val Ile Ser Arg Val Ala Val Glu Asp Gly Gly Phe Tyr Thr				
1055		1060		1065
Cys Val Ala Phe Asn Gly Gln Asp Arg Asp Gln Arg Trp Val Gln				
1070		1075		1080
Leu Arg Val Leu Gly Glu Leu Thr Ile Ser Gly Leu Pro Pro Thr				
1085		1090		1095
Val Thr Val Pro Glu Gly Asp Thr Ala Arg Leu Leu Cys Val Val				
1100		1105		1110
Ala Gly Glu Ser Val Asn Ile Arg Trp Ser Arg Asn Gly Leu Pro				
1115		1120		1125
Val Gln Ala Asp Gly His Arg Val His Gln Ser Pro Asp Gly Thr				
1130		1135		1140
Leu Leu Ile Tyr Asn Leu Arg Ala Arg Asp Glu Gly Ser Tyr Thr				
1145		1150		1155
Cys Ser Ala Tyr Gln Gly Ser Gln Ala Val Ser Arg Ser Thr Glu				
1160		1165		1170
Val Lys Val Val Ser Pro Ala Pro Thr Ala Gln Pro Arg Asp Pro				
1175		1180		1185
Gly Arg Asp Cys Val Asp Gln Pro Glu Leu Ala Asn Cys Asp Leu				
1190		1195		1200
Ile Leu Gln Ala Gln Leu Cys Gly Asn Glu Tyr Tyr Ser Ser Phe				
1205		1210		1215
Cys Cys Ala Ser Cys Ser Arg Phe Gln Pro His Ala Gln Pro Ile				
1220		1225		1230
Trp Gln				
1235				

<210> 244
<211> 375
<212> PRT
<213> homo sapiens

<400> 244

Met Asp Ala Ile His Ile Gly Met Ser Ser Thr Pro Leu Val Lys His
1 5 10 15

Thr Ala Gly Ala Gly Leu Lys Ala Asn Arg Pro Arg Val Met Ser Lys
20 25 30

Ser Gly His Ser Asn Val Arg Ile Asp Lys Val Asp Gly Ile Tyr Leu
35 40 45

Leu Tyr Leu Gln Asp Leu Trp Thr Thr Val Ile Asp Met Lys Trp Arg
50 55 60

Tyr Lys Leu Thr Leu Phe Ala Ala Thr Phe Val Met Thr Trp Phe Leu
65 70 75 80

Phe Gly Val Ile Tyr Tyr Ala Ile Ala Phe Ile His Gly Asp Leu Glu
85 90 95

Pro Gly Glu Pro Ile Ser Asn His Thr Pro Cys Ile Met Lys Val Asp
100 105 110

Ser Leu Thr Gly Ala Phe Leu Phe Ser Leu Glu Ser Gln Thr Thr Ile
115 120 125

Gly Tyr Gly Val Arg Ser Ile Thr Glu Glu Cys Pro His Ala Ile Phe
130 135 140

Leu Leu Val Ala Gln Leu Val Ile Thr Thr Leu Ile Glu Ile Phe Ile
145 150 155 160

Thr Gly Thr Phe Leu Ala Lys Ile Ala Arg Pro Lys Lys Arg Ala Glu
165 170 175

Thr Ile Lys Phe Ser His Cys Ala Val Ile Thr Lys Gln Asn Gly Lys
180 185 190

Leu Cys Leu Val Ile Gln Val Ala Asn Met Arg Lys Ser Leu Leu Ile
195 200 205

Gln Cys Gln Leu Ser Gly Lys Leu Leu Gln Thr His Val Thr Lys Glu
210 215 220

Gly Glu Arg Ile Leu Leu Asn Gln Ala Thr Val Lys Phe His Val Asp
225 230 235 240

Ser Ser Ser Glu Ser Pro Phe Leu Ile Leu Pro Met Thr Phe Tyr His
245 250 255

Val Leu Asp Glu Thr Ser Pro Leu Arg Asp Leu Thr Pro Gln Asn Leu
260 265 270

Lys Glu Lys Glu Phe Glu Leu Val Val Leu Leu Asn Ala Thr Val Glu
275 280 285

Ser Thr Ser Ala Val Cys Gln Ser Arg Thr Ser Tyr Ile Pro Glu Glu
290 295 300

Ile Tyr Trp Gly Phe Glu Phe Val Pro Val Val Ser Leu Ser Lys Asn
305 310 315 320

Gly Lys Tyr Val Ala Asp Phe Ser Gln Phe Glu Gln Ile Arg Lys Ser
325 330 335

Pro Asp Cys Thr Phe Tyr Cys Ala Asp Ser Glu Lys Gln Gln Leu Glu
340 345 350

Glu Lys Tyr Arg Gln Glu Asp Gln Arg Glu Arg Glu Leu Arg Thr Leu
355 360 365

Leu Leu Gln Gln Ser Asn Val
370 375

<210> 245
<211> 300
<212> PRT
<213> homo sapiens

<400> 245

Arg Ser Asp Ala Ala Val Arg Arg Ile Ser Ser Ala Gln Ser Ala Pro
1 5 10 15

Gln Val Val Leu Val Cys Arg Val Met Thr Ser Phe Arg Leu Ala Leu
20 25 30

Ile Gln Leu Gln Ile Ser Ser Ile Lys Ser Asp Asn Val Thr Arg Ala
35 40 45

Cys Ser Phe Ile Arg Glu Ala Ala Thr Gln Gly Ala Lys Ile Val Ser
50 55 60

Leu Pro Glu Cys Phe Asn Ser Pro Tyr Gly Ala Lys Tyr Phe Pro Glu
65 70 75 80

Tyr Ala Glu Lys Ile Pro Gly Glu Ser Thr Gln Lys Leu Ser Glu Val
85 90 95

Ala Lys Glu Cys Ser Ile Tyr Leu Ile Gly Gly Ser Ile Pro Glu Glu
100 105 110

Asp Ala Gly Lys Leu Tyr Asn Thr Cys Ala Val Phe Gly Pro Asp Gly
115 120 125

Thr Leu Leu Ala Lys Tyr Arg Lys Ile His Leu Phe Asp Ile Asp Val
130 135 140

Pro Gly Lys Ile Thr Phe Gln Glu Ser Lys Thr Leu Ser Pro Gly Asp
145 150 155 160

Ser Phe Ser Thr Phe Asp Thr Pro Tyr Cys Arg Val Gly Leu Gly Ile
165 170 175

Cys Tyr Asp Met Arg Phe Ala Glu Leu Ala Gln Ile Tyr Ala Gln Arg
180 185 190

Gly Cys Gln Leu Leu Val Tyr Pro Gly Ala Phe Asn Leu Thr Thr Gly
195 200 205

Pro Ala His Trp Glu Leu Leu Gln Arg Ser Arg Ala Val Asp Asn Gln
210 215 220

Val Tyr Val Ala Thr Ala Ser Pro Ala Arg Asp Asp Lys Ala Ser Tyr
225 230 235 240

Val Ala Trp Gly His Ser Thr Val Val Asn Pro Trp Gly Glu Val Leu
245 250 255

Ala Lys Ala Gly Thr Glu Glu Ala Ile Val Tyr Ser Asp Ile Asp Leu
260 265 270

Lys Lys Leu Ala Glu Ile Arg Gln Gln Ile Pro Val Phe Arg Gln Lys
275 280 285

Arg Ser Asp Leu Tyr Ala Val Glu Met Lys Lys Pro
290 295 300

<210> 246
<211> 463
<212> PRT
<213> homo sapiens

<400> 246

Met Gly Ala Gly Pro Ser Leu Leu Leu Ala Ala Leu Leu Leu Leu Leu
1 5 10 15

Ser Gly Asp Gly Ala Val Arg Cys Asp Thr Pro Ala Asn Cys Thr Tyr
20 25 30

Leu Asp Leu Leu Gly Thr Trp Val Phe Gln Val Gly Ser Ser Gly Ser
35 40 45

Gln Arg Asp Val Asn Cys Ser Val Met Gly Pro Gln Glu Lys Lys Val
50 55 60

Val Val Tyr Leu Gln Lys Leu Asp Thr Ala Tyr Asp Asp Leu Gly Asn
65 70 75 80

Ser Gly His Phe Thr Ile Ile Tyr Asn Gln Gly Phe Glu Ile Val Leu
85 90 95

Asn Asp Tyr Lys Trp Phe Ala Phe Phe Lys Tyr Lys Glu Glu Gly Ser
100 105 110

Lys Val Thr Thr Tyr Cys Asn Glu Thr Met Thr Gly Trp Val His Asp
115 120 125

Val Leu Gly Arg Asn Trp Ala Cys Phe Thr Gly Lys Lys Val Gly Thr

130																
Ala	Ser	Glu	Asn	Val	Tyr	Val	Asn	Ile	Ala	His	Leu	Lys	Asn	Ser	Gln	
145					150					155					160	
Glu	Lys	Tyr	Ser	Asn	Arg	Leu	Tyr	Lys	Tyr	Asp	His	Asn	Phe	Val	Lys	
				165					170					175		
Ala	Ile	Asn	Ala	Ile	Gln	Lys	Ser	Trp	Thr	Ala	Thr	Thr	Tyr	Met	Glu	
			180					185					190			
Tyr	Glu	Thr	Leu	Thr	Leu	Gly	Asp	Met	Ile	Arg	Arg	Ser	Gly	Gly	His	
		195					200					205				
Ser	Arg	Lys	Ile	Pro	Arg	Pro	Lys	Pro	Ala	Pro	Leu	Thr	Ala	Glu	Ile	
	210					215					220					
Gln	Gln	Lys	Ile	Leu	His	Leu	Pro	Thr	Ser	Trp	Asp	Trp	Arg	Asn	Val	
225					230					235					240	
His	Gly	Ile	Asn	Phe	Val	Ser	Pro	Val	Arg	Asn	Gln	Ala	Ser	Cys	Gly	
				245					250					255		
Ser	Cys	Tyr	Ser	Phe	Ala	Ser	Met	Gly	Met	Leu	Glu	Ala	Arg	Ile	Arg	
			260					265					270			
Ile	Leu	Thr	Asn	Asn	Ser	Gln	Thr	Pro	Ile	Leu	Ser	Pro	Gln	Glu	Val	
		275					280					285				
Val	Ser	Cys	Ser	Gln	Tyr	Ala	Gln	Gly	Cys	Glu	Gly	Gly	Phe	Pro	Tyr	
	290					295					300					
Leu	Ile	Ala	Gly	Lys	Tyr	Ala	Gln	Asp	Phe	Gly	Leu	Val	Glu	Glu	Ala	
305					310					315					320	
Cys	Phe	Pro	Tyr	Thr	Gly	Thr	Asp	Ser	Pro	Cys	Lys	Met	Lys	Glu	Asp	
				325					330					335		
Cys	Phe	Arg	Tyr	Tyr	Ser	Ser	Glu	Tyr	His	Tyr	Val	Gly	Gly	Phe	Tyr	
			340					345					350			
Gly	Gly	Cys	Asn	Glu	Ala	Leu	Met	Lys	Leu	Glu	Leu	Val	His	His	Gly	
		355					360					365				

Pro Met Ala Val Ala Phe Glu Val Tyr Asp Asp Phe Leu His Tyr Lys
370 375 380

Lys Gly Ile Tyr His His Thr Gly Leu Arg Asp Pro Phe Asn Pro Phe
385 390 395 400

Glu Leu Thr Asn His Ala Val Leu Leu Val Gly Tyr Gly Thr Asp Ser
405 410 415

Ala Ser Gly Met Asp Tyr Trp Ile Val Lys Asn Ser Trp Gly Thr Gly
420 425 430

Trp Gly Glu Asn Gly Tyr Phe Arg Ile Arg Arg Gly Thr Asp Glu Cys
435 440 445

Ala Ile Glu Ser Ile Ala Val Ala Ala Thr Pro Ile Pro Lys Leu
450 455 460

<210> 247
<211> 134
<212> PRT
<213> homo sapiens

<400> 247

Met Gly Ala Gly Pro Ser Leu Leu Leu Ala Ala Leu Leu Leu Leu Leu
1 5 10 15

Ser Gly Asp Gly Ala Val Arg Cys Asp Thr Pro Ala Asn Cys Thr Tyr
20 25 30

Leu Asp Leu Leu Gly Thr Trp Val Phe Gln Val Gly Ser Ser Gly Ser
35 40 45

Gln Arg Asp Val Asn Cys Ser Val Met Gly Pro Gln Glu Lys Lys Val
50 55 60

Val Val Tyr Leu Gln Lys Leu Asp Thr Ala Tyr Asp Asp Leu Gly Asn
65 70 75 80

Ser Gly His Phe Thr Ile Ile Tyr Asn Gln Gly Phe Glu Ile Val Leu
85 90 95

Asn Asp Tyr Lys Trp Phe Ala Phe Phe Lys Asp Val Thr Asp Phe Ile
100 105 110

Ser His Leu Phe Met Gln Leu Gly Thr Val Gly Ile Tyr Asp Leu Pro
115 120 125

His Leu Arg Asn Lys Leu
130

<210> 248
<211> 1265
<212> PRT
<213> homo sapiens

<400> 248

Met Ser Thr Thr Val Asn Val Asp Ser Leu Ala Glu Tyr Glu Lys Ser
1 5 10 15

Gln Ile Lys Arg Ala Leu Glu Leu Gly Thr Val Met Thr Val Phe Ser
20 25 30

Phe Arg Lys Ser Thr Pro Glu Arg Arg Thr Val Gln Val Ile Met Glu
35 40 45

Thr Arg Gln Val Ala Trp Ser Lys Thr Ala Asp Lys Ile Glu Gly Phe
50 55 60

Leu Asp Ile Met Glu Ile Lys Glu Ile Arg Pro Gly Lys Asn Ser Lys
65 70 75 80

Asp Phe Glu Arg Ala Lys Ala Val Arg Gln Lys Glu Asp Cys Cys Phe
85 90 95

Thr Ile Leu Tyr Gly Thr Gln Phe Val Leu Ser Thr Leu Ser Leu Ala
100 105 110

Ala Asp Ser Lys Glu Asp Ala Val Asn Trp Leu Ser Gly Leu Lys Ile
115 120 125

Leu His Gln Glu Ala Met Asn Ala Ser Thr Pro Thr Ile Ile Glu Ser
130 135 140

Trp Leu Arg Lys Gln Ile Tyr Ser Val Asp Gln Thr Arg Arg Asn Ser
145 150 155 160

Ile Ser Leu Arg Glu Leu Lys Thr Ile Leu Pro Leu Ile Asn Phe Lys
165 170 175

Val Ser Ser Ala Lys Phe Leu Lys Asp Lys Phe Val Glu Ile Gly Ala
180 185 190

His Lys Asp Glu Leu Ser Phe Glu Gln Phe His Leu Phe Tyr Lys Lys
195 200 205

Leu Met Phe Glu Gln Gln Lys Ser Ile Leu Asp Glu Phe Lys Lys Asp
210 215 220

Ser Ser Val Phe Ile Leu Gly Asn Thr Asp Arg Pro Asp Ala Ser Ala
225 230 235 240

Val Tyr Leu His Asp Phe Gln Arg Phe Leu Ile His Glu Gln Gln Glu
245 250 255

His Trp Ala Gln Asp Leu Asn Lys Val Arg Glu Arg Met Thr Lys Phe
260 265 270

Ile Asp Asp Thr Met Arg Glu Thr Ala Glu Pro Phe Leu Phe Val Asp
275 280 285

Glu Phe Leu Thr Tyr Leu Phe Ser Arg Glu Asn Ser Ile Trp Asp Glu
290 295 300

Lys Tyr Asp Ala Val Asp Met Gln Asp Met Asn Asn Pro Leu Ser His
305 310 315 320

Tyr Trp Ile Ser Ser Ser His Asn Thr Tyr Leu Thr Gly Asp Gln Leu
325 330 335

Arg Ser Glu Ser Ser Pro Glu Ala Tyr Ile Arg Cys Leu Arg Met Gly
340 345 350

Cys Arg Cys Ile Glu Leu Asp Cys Trp Asp Gly Pro Asp Gly Lys Pro
355 360 365

Val Ile Tyr His Gly Trp Thr Arg Thr Thr Lys Ile Lys Phe Asp Asp
370 375 380

Val Val Gln Ala Ile Lys Asp His Ala Phe Val Thr Ser Ser Phe Pro
385 390 395 400

Val Ile Leu Ser Ile Glu Glu His Cys Ser Val Glu Gln Gln Arg His
405 410 415

Met Ala Lys Ala Phe Lys Glu Val Phe Gly Asp Leu Leu Leu Thr Lys
420 425 430

Pro Thr Glu Ala Ser Ala Asp Gln Leu Pro Ser Pro Ser Gln Leu Arg
435 440 445

Glu Lys Ile Ile Ile Lys His Lys Lys Leu Gly Pro Arg Gly Asp Val
450 455 460

Asp Val Asn Met Glu Asp Lys Lys Asp Glu His Lys Gln Gln Gly Glu
465 470 475 480

Leu Tyr Met Trp Asp Ser Ile Asp Gln Lys Trp Thr Arg His Tyr Cys
485 490 495

Ala Ile Ala Asp Ala Lys Leu Ser Phe Ser Asp Asp Ile Glu Gln Thr
500 505 510

Met Glu Glu Glu Val Pro Gln Asp Ile Pro Pro Thr Glu Leu His Phe
515 520 525

Gly Glu Lys Trp Phe His Lys Lys Val Glu Lys Arg Thr Ser Ala Glu
530 535 540

Lys Leu Leu Gln Glu Tyr Cys Met Glu Thr Gly Gly Lys Asp Gly Thr
545 550 555 560

Phe Leu Val Arg Glu Ser Glu Thr Phe Pro Asn Asp Tyr Thr Leu Ser
565 570 575

Phe Trp Arg Ser Gly Arg Val Gln His Cys Arg Ile Arg Ser Thr Met
580 585 590

Glu Gly Gly Thr Leu Lys Tyr Tyr Leu Thr Asp Asn Leu Thr Phe Ser
595 600 605

Ser Ile Tyr Ala Leu Ile Gln His Tyr Arg Glu Thr His Leu Arg Cys
610 615 620

Ala Glu Phe Glu Leu Arg Leu Thr Asp Pro Val Pro Asn Pro Asn Pro
625 630 635 640

His Glu Ser Lys Pro Trp Tyr Tyr Asp Ser Leu Ser Arg Gly Glu Ala
645 650 655

Glu Asp Met Leu Met Arg Ile Pro Arg Asp Gly Ala Phe Leu Ile Arg
660 665 670

Lys Arg Glu Gly Ser Asp Ser Tyr Ala Ile Thr Phe Arg Ala Arg Gly
675 680 685

Lys Val Lys His Cys Arg Ile Asn Arg Asp Gly Arg His Phe Val Leu
690 695 700

Gly Thr Ser Ala Tyr Phe Glu Ser Leu Val Glu Leu Val Ser Tyr Tyr
705 710 715 720

Glu Lys His Ser Leu Tyr Arg Lys Met Arg Leu Arg Tyr Pro Val Thr
725 730 735

Pro Glu Leu Leu Glu Arg Tyr Asn Met Glu Arg Asp Ile Asn Ser Leu
740 745 750

Tyr Asp Val Ser Arg Met Tyr Val Asp Pro Ser Glu Ile Asn Pro Ser
755 760 765

Met Pro Gln Arg Thr Val Lys Ala Leu Tyr Asp Tyr Lys Ala Lys Arg
770 775 780

Ser Asp Glu Leu Ser Phe Cys Arg Gly Ala Leu Ile His Asn Val Ser
785 790 795 800

Lys Glu Pro Gly Gly Trp Trp Lys Gly Asp Tyr Gly Thr Arg Ile Gln
805 810 815

Gln Tyr Phe Pro Ser Asn Tyr Val Glu Asp Ile Ser Thr Ala Asp Phe
820 825 830

Glu Glu Leu Glu Lys Gln Ile Ile Glu Asp Asn Pro Leu Gly Ser Leu

835		840		845
Cys Arg Gly Ile Leu Asp	Leu Asn Thr Tyr Asn Val Val Lys Ala Pro			
850	855	860		
Gln Gly Lys Asn Gln Lys Ser Phe Val Phe Ile Leu Glu Pro Lys Gln				
865	870	875		880
Gln Gly Asp Pro Pro Val Glu Phe Ala Thr Asp Arg Val Glu Glu Leu				
	885	890		895
Phe Glu Trp Phe Gln Ser Ile Arg Glu Ile Thr Trp Lys Ile Asp Thr				
	900	905		910
Lys Glu Asn Asn Met Lys Tyr Trp Glu Lys Asn Gln Ser Ile Ala Ile				
	915	920		925
Glu Leu Ser Asp Leu Val Val Tyr Cys Lys Pro Thr Ser Lys Thr Lys				
	930	935		940
Asp Asn Leu Glu Asn Pro Asp Phe Arg Glu Ile Arg Ser Phe Val Glu				
945	950	955		960
Thr Lys Ala Asp Ser Ile Ile Arg Gln Lys Pro Val Asp Leu Leu Lys				
	965	970		975
Tyr Asn Gln Lys Gly Leu Thr Arg Val Tyr Pro Lys Gly Gln Arg Val				
	980	985		990
Asp Ser Ser Asn Tyr Asp Pro Phe Arg Leu Trp Leu Cys Gly Ser Gln				
	995	1000		1005
Met Val Ala Leu Asn Phe Gln Thr Ala Asp Lys Tyr Met Gln Met				
	1010	1015		1020
Asn His Ala Leu Phe Ser Leu Asn Gly Arg Thr Gly Tyr Val Leu				
	1025	1030		1035
Gln Pro Glu Ser Met Arg Thr Glu Lys Tyr Asp Pro Met Pro Pro				
	1040	1045		1050
Glu Ser Gln Arg Lys Ile Leu Met Thr Leu Thr Val Lys Val Leu				
	1055	1060		1065

Gly Ala Arg His Leu Pro Lys Leu Gly Arg Ser Ile Ala Cys Pro
1070 1075 1080

Phe Val Glu Val Glu Ile Cys Gly Ala Glu Tyr Asp Asn Asn Lys
1085 1090 1095

Phe Lys Thr Thr Val Val Asn Asp Asn Gly Leu Ser Pro Ile Trp
1100 1105 1110

Ala Pro Thr Gln Glu Lys Val Thr Phe Glu Ile Tyr Asp Pro Asn
1115 1120 1125

Leu Ala Phe Leu Arg Phe Val Val Tyr Glu Glu Asp Met Phe Ser
1130 1135 1140

Asp Pro Asn Phe Leu Ala His Ala Thr Tyr Pro Ile Lys Ala Val
1145 1150 1155

Lys Ser Gly Phe Arg Ser Val Pro Leu Lys Asn Gly Tyr Ser Glu
1160 1165 1170

Asp Ile Glu Leu Ala Ser Leu Leu Val Phe Cys Glu Met Arg Pro
1175 1180 1185

Val Leu Glu Ser Glu Glu Glu Leu Tyr Ser Ser Cys Arg Gln Leu
1190 1195 1200

Arg Arg Arg Gln Glu Glu Leu Asn Asn Gln Leu Phe Leu Tyr Asp
1205 1210 1215

Thr His Gln Asn Leu Arg Asn Ala Asn Arg Asp Ala Leu Val Lys
1220 1225 1230

Glu Phe Ser Val Asn Glu Asn Gln Leu Gln Leu Tyr Gln Glu Lys
1235 1240 1245

Cys Asn Lys Arg Leu Arg Glu Lys Arg Val Ser Asn Ser Lys Phe
1250 1255 1260

Tyr Ser
1265

<210> 249
<211> 260
<212> PRT
<213> homo sapiens

<400> 249

Met Ser His His Trp Gly Tyr Gly Lys His Asn Gly Pro Glu His Trp
1 5 10 15

His Lys Asp Phe Pro Ile Ala Lys Gly Glu Arg Gln Ser Pro Val Asp
20 25 30

Ile Asp Thr His Thr Ala Lys Tyr Asp Pro Ser Leu Lys Pro Leu Ser
35 40 45

Val Ser Tyr Asp Gln Ala Thr Ser Leu Arg Ile Leu Asn Asn Gly His
50 55 60

Ala Phe Asn Val Glu Phe Asp Asp Ser Gln Asp Lys Ala Val Leu Lys
65 70 75 80

Gly Gly Pro Leu Asp Gly Thr Tyr Arg Leu Ile Gln Phe His Phe His
85 90 95

Trp Gly Ser Leu Asp Gly Gln Gly Ser Glu His Thr Val Asp Lys Lys
100 105 110

Lys Tyr Ala Ala Glu Leu His Leu Val His Trp Asn Thr Lys Tyr Gly
115 120 125

Asp Phe Gly Lys Ala Val Gln Gln Pro Asp Gly Leu Ala Val Leu Gly
130 135 140

Ile Phe Leu Lys Val Gly Ser Ala Lys Pro Gly Leu Gln Lys Val Val
145 150 155 160

Asp Val Leu Asp Ser Ile Lys Thr Lys Gly Lys Ser Ala Asp Phe Thr
165 170 175

Asn Phe Asp Pro Arg Gly Leu Leu Pro Glu Ser Leu Asp Tyr Trp Thr
180 185 190

Tyr Pro Gly Ser Leu Thr Thr Pro Pro Leu Leu Glu Cys Val Thr Trp

195		200		205
Ile Val Leu Lys Glu Pro Ile Ser Val Ser Ser Glu Gln Val Leu Lys				
210		215		220
Phe Arg Lys Leu Asn Phe Asn Gly Glu Gly Glu Pro Glu Glu Leu Met				
225		230		235
				240
Val Asp Asn Trp Arg Pro Ala Gln Pro Leu Lys Asn Arg Gln Ile Lys				
	245		250	255
Ala Ser Phe Lys				
260				
<210>	250			
<211>	991			
<212>	PRT			
<213>	homo sapiens			
<400>	250			
Met Ser Ser His His Thr Thr Phe Pro Phe Asp Pro Glu Arg Arg Val				
1	5		10	15
Arg Ser Thr Leu Lys Lys Val Phe Gly Phe Asp Ser Phe Lys Thr Pro				
	20		25	30
Leu Gln Glu Ser Ala Thr Met Ala Val Val Lys Gly Asn Lys Asp Val				
	35		40	45
Phe Val Cys Met Pro Thr Gly Ala Gly Lys Ser Leu Cys Tyr Gln Leu				
50		55		60
Pro Ala Leu Leu Ala Lys Gly Ile Thr Ile Val Val Ser Pro Leu Ile				
65		70		75
				80
Ala Leu Ile Gln Asp Gln Val Asp His Leu Leu Thr Leu Lys Val Arg				
	85		90	95
Val Ser Ser Leu Asn Ser Lys Leu Ser Ala Gln Glu Arg Lys Glu Leu				
	100		105	110
Leu Ala Asp Leu Glu Arg Glu Lys Pro Gln Thr Lys Ile Leu Tyr Ile				
115		120		125

Thr Pro Glu Met Ala Ala Ser Ser Ser Phe Gln Pro Thr Leu Asn Ser
130 135 140

Leu Val Ser Arg His Leu Leu Ser Tyr Leu Val Val Asp Glu Ala His
145 150 155 160

Cys Val Ser Gln Trp Gly His Asp Phe Arg Pro Asp Tyr Leu Arg Leu
165 170 175

Gly Ala Leu Arg Ser Arg Leu Gly His Ala Pro Cys Val Ala Leu Thr
180 185 190

Ala Thr Ala Thr Pro Gln Val Gln Glu Asp Val Phe Ala Ala Leu His
195 200 205

Leu Lys Lys Pro Val Ala Ile Phe Lys Thr Pro Cys Phe Arg Ala Asn
210 215 220

Leu Phe Tyr Asp Val Gln Phe Lys Glu Leu Ile Ser Asp Pro Tyr Gly
225 230 235 240

Asn Leu Lys Asp Phe Cys Leu Lys Ala Leu Gly Gln Glu Ala Asp Lys
245 250 255

Gly Leu Ser Gly Cys Gly Ile Val Tyr Cys Arg Thr Arg Glu Ala Cys
260 265 270

Glu Gln Leu Ala Ile Glu Leu Ser Cys Arg Gly Val Asn Ala Lys Ala
275 280 285

Tyr His Ala Gly Leu Lys Ala Ser Glu Arg Thr Leu Val Gln Asn Asp
290 295 300

Trp Met Glu Glu Lys Val Pro Val Ile Val Ala Thr Ile Ser Phe Gly
305 310 315 320

Met Gly Val Asp Lys Ala Asn Val Arg Phe Val Ala His Trp Asn Ile
325 330 335

Ala Lys Ser Met Ala Gly Tyr Tyr Gln Glu Ser Gly Arg Ala Gly Arg
340 345 350

Asp Gly Lys Pro Ser Trp Cys Arg Leu Tyr Tyr Ser Arg Asn Asp Arg
355 360 365

Asp Gln Val Ser Phe Leu Ile Arg Lys Glu Val Ala Lys Leu Gln Glu
370 375 380

Lys Arg Gly Asn Lys Ala Ser Asp Lys Ala Thr Ile Met Ala Phe Asp
385 390 395 400

Ala Leu Val Thr Phe Cys Glu Glu Leu Gly Cys Arg His Ala Ala Ile
405 410 415

Ala Lys Tyr Phe Gly Asp Ala Leu Pro Ala Cys Ala Lys Gly Cys Asp
420 425 430

His Cys Gln Asn Pro Thr Ala Val Arg Arg Arg Leu Glu Ala Leu Glu
435 440 445

Arg Ser Ser Ser Trp Ser Lys Thr Cys Ile Gly Pro Ser Gln Gly Asn
450 455 460

Gly Phe Asp Pro Glu Leu Tyr Glu Gly Gly Arg Lys Gly Tyr Gly Asp
465 470 475 480

Phe Ser Arg Tyr Asp Glu Gly Ser Gly Gly Ser Gly Asp Glu Gly Arg
485 490 495

Asp Glu Ala His Lys Arg Glu Trp Asn Leu Phe Tyr Gln Lys Gln Met
500 505 510

Gln Leu Arg Lys Gly Lys Asp Pro Lys Ile Glu Glu Phe Val Pro Pro
515 520 525

Asp Glu Asn Cys Pro Leu Lys Glu Ala Ser Ser Arg Arg Ile Pro Arg
530 535 540

Leu Thr Val Lys Ala Arg Glu His Cys Leu Arg Leu Leu Glu Glu Ala
545 550 555 560

Leu Ser Ser Asn Arg Gln Ser Thr Arg Thr Ala Asp Glu Ala Asp Leu
565 570 575

Arg Ala Lys Ala Val Glu Leu Glu His Glu Thr Phe Arg Asn Ala Lys

580

585

590

Val Ala Asn Leu Tyr Lys Ala Ser Val Leu Lys Lys Val Ala Asp Ile
595 600 605

His Arg Ala Ser Lys Asp Gly Gln Pro Tyr Asp Met Gly Gly Ser Ala
610 615 620

Lys Ser Cys Ser Ala Gln Ala Glu Pro Pro Glu Pro Asn Glu Tyr Asp
625 630 635 640

Ile Pro Pro Ala Ser His Val Tyr Ser Leu Lys Pro Lys Arg Val Gly
645 650 655

Ala Gly Phe Pro Lys Gly Ser Cys Pro Phe Gln Thr Ala Thr Glu Leu
660 665 670

Met Glu Thr Thr Arg Ile Arg Glu Gln Ala Pro Gln Pro Glu Arg Gly
675 680 685

Gly Glu His Glu Pro Pro Ser Arg Pro Cys Gly Leu Leu Asp Glu Asp
690 695 700

Gly Ser Glu Pro Leu Pro Gly Pro Arg Gly Glu Val Pro Gly Gly Ser
705 710 715 720

Ala His Tyr Gly Gly Pro Ser Pro Glu Lys Lys Ala Lys Ser Ser Ser
725 730 735

Gly Gly Ser Ser Leu Ala Lys Gly Arg Ala Ser Lys Lys Gln Gln Leu
740 745 750

Leu Ala Thr Ala Ala His Lys Asp Ser Gln Ser Ile Ala Arg Phe Phe
755 760 765

Cys Arg Arg Val Glu Ser Pro Ala Leu Leu Ala Ser Ala Pro Glu Ala
770 775 780

Glu Gly Ala Cys Pro Ser Cys Glu Gly Val Gln Gly Pro Pro Met Ala
785 790 795 800

Pro Glu Lys Tyr Thr Gly Glu Glu Asp Gly Ala Gly Gly His Ser Pro
805 810 815

Ala Pro Pro Gln Thr Glu Glu Cys Leu Arg Glu Arg Pro Ser Thr Cys
820 825 830

Pro Pro Arg Asp Gln Gly Thr Pro Glu Val Gln Pro Thr Pro Ala Lys
835 840 845

Asp Thr Trp Lys Gly Lys Arg Pro Arg Ser Gln Gln Glu Asn Pro Glu
850 855 860

Ser Gln Pro Gln Lys Arg Pro Arg Pro Ser Ala Lys Pro Ser Val Val
865 870 875 880

Ala Glu Val Lys Gly Ser Val Ser Ala Ser Glu Gln Gly Thr Leu Asn
885 890 895

Pro Thr Ala Gln Asp Pro Phe Gln Leu Ser Ala Pro Gly Val Ser Leu
900 905 910

Lys Glu Ala Ala Asn Val Val Val Lys Cys Leu Thr Pro Phe Tyr Lys
915 920 925

Glu Gly Lys Phe Ala Ser Lys Glu Leu Phe Lys Gly Phe Ala Arg His
930 935 940

Leu Ser His Leu Leu Thr Gln Lys Thr Ser Pro Gly Arg Ser Val Lys
945 950 955 960

Glu Glu Ala Gln Asn Leu Ile Arg His Phe Phe His Gly Arg Ala Arg
965 970 975

Cys Glu Ser Glu Ala Asp Trp His Gly Leu Cys Gly Pro Gln Arg
980 985 990

<210> 251
<211> 405
<212> PRT
<213> homo sapiens

<400> 251

Met Glu Arg Trp Pro Trp Pro Ser Gly Gly Ala Trp Leu Leu Val Ala
1 5 10 15

Ala Arg Ala Leu Leu Gln Leu Leu Arg Ser Asp Leu Arg Leu Gly Arg
20 25 30

Pro Leu Leu Ala Ala Leu Ala Leu Leu Ala Ala Leu Asp Trp Leu Cys
35 40 45

Gln Arg Leu Leu Pro Pro Pro Ala Ala Leu Ala Val Leu Ala Ala Ala
50 55 60

Gly Trp Ile Ala Leu Ser Arg Leu Ala Arg Pro Gln Arg Leu Pro Val
65 70 75 80

Ala Thr Arg Ala Val Leu Ile Thr Gly Cys Asp Ser Gly Phe Gly Lys
85 90 95

Glu Thr Ala Lys Lys Leu Asp Ser Met Gly Phe Thr Val Leu Ala Thr
100 105 110

Val Leu Glu Leu Asn Ser Pro Gly Ala Ile Glu Leu Arg Thr Cys Cys
115 120 125

Ser Pro Arg Leu Arg Leu Leu Gln Met Asp Leu Thr Lys Pro Gly Asp
130 135 140

Ile Ser Arg Val Leu Glu Phe Thr Lys Ala His Thr Thr Ser Thr Gly
145 150 155 160

Leu Trp Gly Leu Val Asn Asn Ala Gly His Asn Glu Val Val Ala Asp
165 170 175

Ala Glu Leu Ser Pro Val Ala Thr Phe Arg Ser Cys Met Glu Val Asn
180 185 190

Phe Phe Gly Ala Leu Glu Leu Thr Lys Gly Leu Leu Pro Leu Leu Arg
195 200 205

Ser Ser Arg Gly Arg Ile Val Thr Val Gly Ser Pro Ala Gly Asp Met
210 215 220

Pro Tyr Pro Cys Leu Gly Ala Tyr Gly Thr Ser Lys Ala Ala Val Ala
225 230 235 240

Leu Leu Met Asp Thr Phe Ser Cys Glu Leu Leu Pro Trp Gly Val Lys

	245		250		255										
Val	Ser	Ile	Ile	Gln	Pro	Gly	Cys	Phe	Lys	Thr	Glu	Ser	Val	Arg	Asn
			260					265					270		
Val	Gly	Gln	Trp	Glu	Lys	Arg	Lys	Gln	Leu	Leu	Leu	Ala	Asn	Leu	Pro
		275					280					285			
Gln	Glu	Leu	Leu	Gln	Ala	Tyr	Gly	Lys	Asp	Tyr	Ile	Glu	His	Leu	His
	290					295					300				
Gly	Gln	Phe	Leu	His	Ser	Leu	Arg	Leu	Ala	Met	Ser	Asp	Leu	Thr	Pro
305					310					315					320
Val	Val	Asp	Ala	Ile	Thr	Asp	Ala	Leu	Leu	Ala	Ala	Arg	Pro	Arg	Arg
			325					330					335		
Arg	Tyr	Tyr	Pro	Gly	Gln	Gly	Leu	Gly	Leu	Met	Tyr	Phe	Ile	His	Tyr
			340					345					350		
Tyr	Leu	Pro	Glu	Gly	Leu	Arg	Arg	Arg	Phe	Leu	Gln	Ala	Phe	Phe	Ile
		355					360					365			
Ser	His	Cys	Leu	Pro	Arg	Ala	Leu	Gln	Pro	Gly	Gln	Pro	Gly	Thr	Thr
	370					375					380				
Pro	Pro	Gln	Asp	Ala	Ala	Gln	Asp	Pro	Asn	Leu	Ser	Pro	Gly	Pro	Ser
385					390					395					400
Pro	Ala	Val	Ala	Arg											
				405											

<210> 252
 <211> 305
 <212> PRT
 <213> homo sapiens

<400> 252

Met	Ala	Ser	Arg	Lys	Glu	Asn	Ala	Lys	Ser	Ala	Asn	Arg	Val	Leu	Arg
1				5					10					15	

Ile	Ser	Gln	Leu	Asp	Ala	Leu	Glu	Leu	Asn	Lys	Ala	Leu	Glu	Gln	Leu
			20					25					30		

Val Trp Ser Gln Phe Thr Gln Cys Phe His Gly Phe Lys Pro Gly Leu
35 40 45

Leu Ala Arg Phe Glu Pro Glu Val Lys Ala Cys Leu Trp Val Phe Leu
50 55 60

Trp Arg Phe Thr Ile Tyr Ser Lys Asn Ala Thr Val Gly Gln Ser Val
65 70 75 80

Leu Asn Ile Lys Tyr Lys Asn Asp Phe Ser Pro Asn Leu Arg Tyr Gln
85 90 95

Pro Pro Ser Lys Asn Gln Lys Ile Trp Tyr Ala Val Cys Thr Ile Gly
100 105 110

Gly Arg Trp Leu Glu Glu Arg Cys Tyr Asp Leu Phe Arg Asn His His
115 120 125

Leu Ala Ser Phe Gly Lys Val Lys Gln Cys Val Asn Phe Val Ile Gly
130 135 140

Leu Leu Lys Leu Gly Gly Leu Ile Asn Phe Leu Ile Phe Leu Gln Arg
145 150 155 160

Gly Lys Phe Ala Thr Leu Thr Glu Arg Leu Leu Gly Ile His Ser Val
165 170 175

Phe Cys Lys Pro Gln Asn Ile Cys Glu Val Gly Phe Glu Tyr Met Asn
180 185 190

Arg Glu Leu Leu Trp His Gly Phe Ala Glu Phe Leu Ile Phe Leu Leu
195 200 205

Pro Leu Ile Asn Val Gln Lys Leu Lys Ala Lys Leu Ser Ser Trp Cys
210 215 220

Ile Pro Leu Thr Gly Ala Pro Asn Ser Asp Asn Thr Leu Ala Thr Ser
225 230 235 240

Gly Lys Glu Cys Ala Leu Cys Gly Glu Trp Pro Thr Met Pro His Thr
245 250 255

Ile Gly Cys Glu His Ile Phe Cys Tyr Phe Cys Ala Lys Ser Ser Phe
260 265 270

Leu Phe Asp Val Tyr Phe Thr Cys Pro Lys Cys Gly Thr Glu Val His
275 280 285

Ser Leu Gln Pro Leu Lys Ser Gly Ile Glu Met Ser Glu Val Asn Ala
290 295 300

Leu
305

<210> 253
<211> 1086
<212> PRT
<213> homo sapiens

<400> 253

Met Ala Asn Leu Leu Lys Thr Val Val Thr Gly Cys Ser Cys Pro Leu
1 5 10 15

Leu Ser Asn Leu Gly Ser Cys Lys Gly Leu Arg Val Lys Lys Asp Phe
20 25 30

Leu Arg Thr Phe Tyr Thr His Gln Glu Leu Trp Cys Lys Ala Pro Val
35 40 45

Lys Pro Gly Ile Pro Tyr Lys Gln Leu Thr Val Gly Val Pro Lys Glu
50 55 60

Ile Phe Gln Asn Glu Lys Arg Val Ala Leu Ser Pro Ala Gly Val Gln
65 70 75 80

Asn Leu Val Lys Gln Gly Phe Asn Val Val Val Glu Ser Gly Ala Gly
85 90 95

Glu Ala Ser Lys Phe Ser Asp Asp His Tyr Arg Val Ala Gly Ala Gln
100 105 110

Ile Gln Gly Ala Lys Glu Val Leu Ala Ser Asp Leu Val Val Lys Val
115 120 125

Arg Ala Pro Met Val Asn Pro Thr Leu Gly Val His Glu Ala Asp Leu
130 135 140

Leu Lys Thr Ser Gly Thr Leu Ile Ser Phe Ile Tyr Pro Ala Gln Asn
145 150 155 160

Pro Glu Leu Leu Asn Lys Leu Ser Gln Arg Lys Thr Thr Val Leu Ala
165 170 175

Met Asp Gln Val Pro Arg Val Thr Ile Ala Gln Gly Tyr Asp Ala Leu
180 185 190

Ser Ser Met Ala Asn Ile Ala Gly Tyr Lys Ala Val Val Leu Ala Ala
195 200 205

Asn His Phe Gly Arg Phe Phe Thr Gly Gln Ile Thr Ala Ala Gly Lys
210 215 220

Val Pro Pro Ala Lys Ile Leu Ile Val Gly Gly Gly Val Ala Gly Leu
225 230 235 240

Ala Ser Ala Gly Ala Ala Lys Ser Met Gly Ala Ile Val Arg Gly Phe
245 250 255

Asp Thr Arg Ala Ala Ala Leu Glu Gln Phe Lys Ser Leu Gly Ala Glu
260 265 270

Pro Leu Glu Val Asp Leu Lys Glu Ser Gly Glu Gly Gln Gly Gly Tyr
275 280 285

Ala Lys Glu Met Ser Lys Glu Phe Ile Glu Ala Glu Met Lys Leu Phe
290 295 300

Ala Gln Gln Cys Lys Glu Val Asp Ile Leu Ile Ser Thr Ala Leu Ile
305 310 315 320

Pro Gly Lys Lys Ala Pro Val Leu Phe Asn Lys Glu Met Ile Glu Ser
325 330 335

Met Lys Glu Gly Ser Val Val Val Asp Leu Ala Ala Glu Ala Gly Gly
340 345 350

Asn Phe Glu Thr Thr Lys Pro Gly Glu Leu Tyr Ile His Lys Gly Ile
355 360 365

Thr His Ile Gly Tyr Thr Asp Leu Pro Ser Arg Met Ala Thr Gln Ala
370 375 380

Ser Thr Leu Tyr Ser Asn Asn Ile Thr Lys Leu Leu Lys Ala Ile Ser
385 390 395 400

Pro Asp Lys Asp Asn Phe Tyr Phe Asp Val Lys Asp Asp Phe Asp Phe
405 410 415

Gly Thr Met Gly His Val Ile Arg Gly Thr Val Val Met Lys Asp Gly
420 425 430

Lys Val Ile Phe Pro Ala Pro Thr Pro Lys Asn Ile Pro Gln Gly Ala
435 440 445

Pro Val Lys Gln Lys Thr Val Ala Glu Leu Glu Ala Glu Lys Ala Ala
450 455 460

Thr Ile Thr Pro Phe Arg Lys Thr Met Ser Thr Ala Ser Ala Tyr Thr
465 470 475 480

Ala Gly Leu Thr Gly Ile Leu Gly Leu Gly Ile Ala Ala Pro Asn Leu
485 490 495

Ala Phe Ser Gln Met Val Thr Thr Phe Gly Leu Ala Gly Ile Val Gly
500 505 510

Tyr His Thr Val Trp Gly Val Thr Pro Ala Leu His Ser Pro Leu Met
515 520 525

Ser Val Thr Asn Ala Ile Ser Gly Leu Thr Ala Val Gly Gly Leu Ala
530 535 540

Leu Met Gly Gly His Leu Tyr Pro Ser Thr Thr Ser Gln Gly Leu Ala
545 550 555 560

Ala Leu Ala Ala Phe Ile Ser Ser Val Asn Ile Ala Gly Gly Phe Leu
565 570 575

Val Thr Gln Arg Met Leu Asp Met Phe Lys Arg Pro Thr Asp Pro Pro
580 585 590

Glu Tyr Asn Tyr Leu Tyr Leu Leu Pro Ala Gly Thr Phe Val Gly Gly
595 600 605

Tyr Leu Ala Ala Leu Tyr Ser Gly Tyr Asn Ile Glu Gln Ile Met Tyr
610 615 620

Leu Gly Ser Gly Leu Cys Cys Val Gly Ala Leu Ala Gly Leu Ser Thr
625 630 635 640

Gln Gly Thr Ala Arg Leu Gly Asn Ala Leu Gly Met Ile Gly Val Ala
645 650 655

Gly Gly Leu Ala Ala Thr Leu Gly Val Leu Lys Pro Gly Pro Glu Leu
660 665 670

Leu Ala Gln Met Ser Gly Ala Met Ala Leu Gly Gly Thr Ile Gly Leu
675 680 685

Thr Ile Ala Lys Arg Ile Gln Ile Ser Asp Leu Pro Gln Leu Val Ala
690 695 700

Ala Phe His Ser Leu Val Gly Leu Ala Ala Val Leu Thr Cys Ile Ala
705 710 715 720

Glu Tyr Ile Ile Glu Tyr Pro His Phe Ala Thr Asp Ala Ala Ala Asn
725 730 735

Leu Thr Lys Ile Val Ala Tyr Leu Gly Thr Tyr Ile Gly Gly Val Thr
740 745 750

Phe Ser Gly Ser Leu Ile Ala Tyr Gly Lys Leu Gln Gly Leu Leu Lys
755 760 765

Ser Ala Pro Leu Leu Leu Pro Gly Arg His Leu Leu Asn Ala Gly Leu
770 775 780

Leu Ala Ala Ser Val Gly Gly Ile Ile Pro Phe Met Val Asp Pro Ser
785 790 795 800

Phe Thr Thr Gly Ile Thr Cys Leu Gly Ser Val Ser Ala Leu Ser Ala
805 810 815

Val Met Gly Val Thr Leu Thr Ala Ala Ile Gly Gly Ala Asp Met Pro

820										825					830				
Val	Val	Ile	Thr	Val	Leu	Asn	Ser	Tyr	Ser	Gly	Trp	Ala	Leu	Cys	Ala				
		835					840					845							
Glu	Gly	Phe	Leu	Leu	Asn	Asn	Asn	Leu	Leu	Thr	Ile	Val	Gly	Ala	Leu				
	850					855					860								
Ile	Gly	Ser	Ser	Gly	Ala	Ile	Leu	Ser	Tyr	Ile	Met	Cys	Val	Ala	Met				
865					870					875					880				
Asn	Arg	Ser	Leu	Ala	Asn	Val	Ile	Leu	Gly	Gly	Tyr	Gly	Thr	Thr	Ser				
				885					890					895					
Thr	Ala	Gly	Gly	Lys	Pro	Met	Glu	Ile	Ser	Gly	Thr	His	Thr	Glu	Ile				
		900						905					910						
Asn	Leu	Asp	Asn	Ala	Ile	Asp	Met	Ile	Arg	Glu	Ala	Asn	Ser	Ile	Ile				
		915					920					925							
Ile	Thr	Pro	Gly	Tyr	Gly	Leu	Cys	Ala	Ala	Lys	Ala	Gln	Tyr	Pro	Ile				
	930					935					940								
Ala	Asp	Leu	Val	Lys	Met	Leu	Thr	Glu	Gln	Gly	Lys	Lys	Val	Arg	Phe				
945					950					955					960				
Gly	Ile	His	Pro	Val	Ala	Gly	Arg	Met	Pro	Gly	Gln	Leu	Asn	Val	Leu				
				965					970					975					
Leu	Ala	Glu	Ala	Gly	Val	Pro	Tyr	Asp	Ile	Val	Leu	Glu	Met	Asp	Glu				
			980					985					990						
Ile	Asn	His	Asp	Phe	Pro	Asp	Thr	Asp	Leu	Val	Leu	Val	Ile	Gly	Ala				
		995					1000						1005						
Asn	Asp	Thr	Val	Asn	Ser	Ala	Ala	Gln	Glu	Asp	Pro	Asn	Ser	Ile					
	1010					1015					1020								
Ile	Ala	Gly	Met	Pro	Val	Leu	Glu	Val	Trp	Lys	Ser	Lys	Gln	Val					
	1025					1030					1035								
Ile	Val	Met	Lys	Arg	Ser	Leu	Gly	Val	Gly	Tyr	Ala	Ala	Val	Asp					
	1040					1045					1050								

Asn Pro Ile Phe Tyr Lys Pro Asn Thr Ala Met Leu Leu Gly Asp
1055 1060 1065

Ala Lys Lys Thr Cys Asp Ala Leu Gln Ala Lys Val Arg Glu Ser
1070 1075 1080

Tyr Gln Lys
1085

<210> 254
<211> 182
<212> PRT
<213> homo sapiens

<400> 254

Met Ala Glu Phe Pro Ser Lys Val Ser Thr Arg Thr Ser Ser Pro Ala
1 5 10 15

Gln Gly Ala Glu Ala Ser Val Ser Ala Leu Arg Pro Asp Leu Gly Phe
20 25 30

Val Arg Ser Arg Leu Gly Ala Leu Met Leu Leu Gln Leu Val Leu Gly
35 40 45

Leu Leu Val Trp Ala Leu Ile Ala Asp Thr Pro Tyr His Leu Tyr Pro
50 55 60

Ala Tyr Gly Trp Val Met Phe Val Ala Val Phe Leu Trp Leu Val Thr
65 70 75 80

Ile Val Leu Phe Asn Leu Tyr Leu Phe Gln Leu His Met Lys Leu Tyr
85 90 95

Met Val Pro Trp Pro Leu Val Leu Met Ile Phe Asn Ile Ser Ala Thr
100 105 110

Val Leu Tyr Ile Thr Ala Phe Ile Ala Cys Ser Ala Ala Val Asp Leu
115 120 125

Thr Ser Leu Arg Gly Thr Arg Pro Tyr Asn Gln Arg Ala Ala Ala Ser
130 135 140

Phe Phe Ala Cys Leu Val Met Ile Ala Tyr Gly Val Ser Ala Phe Phe
145 150 155 160

Ser Tyr Gln Ala Trp Arg Gly Val Gly Ser Asn Ala Ala Thr Ser Gln
165 170 175

Met Ala Gly Gly Tyr Ala
180

<210> 255
<211> 117
<212> PRT
<213> homo sapiens

<400> 255

Met Lys Phe Gln Tyr Lys Glu Asp His Pro Phe Glu Tyr Arg Lys Lys
1 5 10 15

Glu Gly Glu Lys Ile Arg Lys Lys Tyr Pro Asp Arg Val Pro Val Ile
20 25 30

Val Glu Lys Ala Pro Lys Ala Arg Val Pro Asp Leu Asp Lys Arg Lys
35 40 45

Tyr Leu Val Pro Ser Asp Leu Thr Val Gly Gln Phe Tyr Phe Leu Ile
50 55 60

Arg Lys Arg Ile His Leu Arg Pro Glu Asp Ala Leu Phe Phe Phe Val
65 70 75 80

Asn Asn Thr Ile Pro Pro Thr Ser Ala Thr Met Gly Gln Leu Tyr Glu
85 90 95

Asp Asn His Glu Glu Asp Tyr Phe Leu Tyr Val Ala Tyr Ser Asp Glu
100 105 110

Ser Val Tyr Gly Lys
115

<210> 256
<211> 257
<212> PRT
<213> homo sapiens

<400> 256

Met Ala Ser Lys Ile Gly Ser Arg Arg Trp Met Leu Gln Leu Ile Met
1 5 10 15

Gln Leu Gly Ser Val Leu Leu Thr Arg Cys Pro Phe Trp Gly Cys Phe
20 25 30

Ser Gln Leu Met Leu Tyr Ala Glu Arg Ala Glu Ala Arg Arg Lys Pro
35 40 45

Asp Ile Pro Val Pro Tyr Leu Tyr Phe Asp Met Gly Ala Ala Val Leu
50 55 60

Cys Ala Ser Phe Met Ser Phe Gly Val Lys Arg Arg Trp Phe Ala Leu
65 70 75 80

Gly Ala Ala Leu Gln Leu Ala Ile Ser Thr Tyr Ala Ala Tyr Ile Gly
85 90 95

Gly Tyr Val His Tyr Gly Asp Trp Leu Lys Val Arg Met Tyr Ser Arg
100 105 110

Thr Val Ala Ile Ile Gly Gly Phe Leu Val Leu Ala Ser Gly Ala Gly
115 120 125

Glu Leu Tyr Arg Arg Lys Pro Arg Ser Arg Ser Leu Gln Ser Thr Gly
130 135 140

Gln Val Phe Leu Gly Ile Tyr Leu Ile Cys Val Ala Tyr Ser Leu Gln
145 150 155 160

His Ser Lys Glu Asp Arg Leu Ala Tyr Leu Asn His Leu Pro Gly Gly
165 170 175

Glu Leu Met Ile Gln Leu Phe Phe Val Leu Tyr Gly Ile Leu Ala Leu
180 185 190

Ala Phe Leu Ser Gly Tyr Tyr Val Thr Leu Ala Ala Gln Ile Leu Ala
195 200 205

Val Leu Leu Pro Pro Val Met Leu Leu Ile Asp Gly Asn Val Ala Tyr
210 215 220

Trp His Asn Thr Arg Arg Val Glu Phe Trp Asn Gln Met Lys Leu Leu
225 230 235 240

Gly Glu Ser Val Gly Ile Phe Gly Thr Ala Val Ile Leu Ala Thr Asp
245 250 255

Gly

<210> 257
<211> 249
<212> PRT
<213> homo sapiens

<400> 257

Met Ala Ser Arg Arg Met Glu Thr Lys Pro Val Ile Thr Cys Leu Lys
1 5 10 15

Thr Leu Leu Ile Ile Tyr Ser Phe Val Phe Trp Ile Thr Gly Val Ile
20 25 30

Leu Leu Ala Val Gly Val Trp Gly Lys Leu Thr Leu Gly Thr Tyr Ile
35 40 45

Ser Leu Ile Ala Glu Asn Ser Thr Asn Ala Pro Tyr Val Leu Ile Gly
50 55 60

Thr Gly Thr Thr Ile Val Val Phe Gly Leu Phe Gly Cys Phe Ala Thr
65 70 75 80

Cys Arg Gly Ser Pro Trp Met Leu Lys Leu Tyr Ala Met Phe Leu Ser
85 90 95

Leu Val Phe Leu Ala Glu Leu Val Ala Gly Ile Ser Gly Phe Val Phe
100 105 110

Arg His Glu Ile Lys Asp Thr Phe Leu Arg Thr Tyr Thr Asp Ala Met
115 120 125

Gln Thr Tyr Asn Gly Asn Asp Glu Arg Ser Arg Ala Val Asp His Val
130 135 140

Gln Arg Ser Leu Ser Cys Cys Gly Val Gln Asn Tyr Thr Asn Trp Ser
145 150 155 160

Thr Ser Pro Tyr Phe Leu Glu His Gly Ile Pro Pro Ser Cys Cys Met
165 170 175

Asn Glu Thr Asp Cys Asn Pro Gln Asp Leu His Asn Leu Thr Val Ala
180 185 190

Ala Thr Lys Val Asn Gln Lys Gly Cys Tyr Asp Leu Val Thr Ser Phe
195 200 205

Met Glu Thr Asn Met Gly Ile Ile Ala Gly Val Ala Phe Gly Ile Ala
210 215 220

Phe Ser Gln Leu Ile Gly Met Leu Leu Ala Cys Cys Leu Ser Arg Phe
225 230 235 240

Ile Thr Ala Asn Gln Tyr Glu Met Val
245

<210> 258
<211> 948
<212> PRT
<213> homo sapiens

<400> 258

Pro Leu Phe Leu Phe Ser Phe Ser Gln Gly Glu Ser Arg Ile Leu Arg
1 5 10 15

Val Lys Val Val Ser Gly Ile Asp Leu Ala Lys Lys Asp Ile Phe Gly
20 25 30

Ala Ser Asp Pro Tyr Val Lys Leu Ser Leu Tyr Val Ala Asp Glu Asn
35 40 45

Arg Glu Leu Ala Leu Val Gln Thr Lys Thr Ile Lys Lys Thr Leu Asn
50 55 60

Pro Lys Trp Asn Glu Glu Phe Tyr Phe Arg Val Asn Pro Ser Asn His
65 70 75 80

Arg Leu Leu Phe Glu Val Phe Asp Glu Asn Arg Leu Thr Arg Asp Asp
85 90 95

Phe Leu Gly Gln Val Asp Val Pro Leu Ser His Leu Pro Thr Glu Asp
100 105 110

Pro Thr Met Glu Arg Pro Tyr Thr Phe Lys Asp Phe Leu Leu Arg Pro
115 120 125

Arg Ser His Lys Ser Arg Val Lys Gly Phe Leu Arg Leu Lys Met Ala
130 135 140

Tyr Met Pro Lys Asn Gly Gly Gln Asp Glu Glu Asn Ser Asp Gln Arg
145 150 155 160

Asp Asp Met Glu His Gly Trp Glu Val Val Asp Ser Asn Asp Ser Ala
165 170 175

Ser Gln His Gln Glu Glu Leu Pro Pro Pro Pro Leu Pro Pro Gly Trp
180 185 190

Glu Glu Lys Val Asp Asn Leu Gly Arg Thr Tyr Tyr Val Asn His Asn
195 200 205

Asn Arg Thr Thr Gln Trp His Arg Pro Ser Leu Met Asp Val Ser Ser
210 215 220

Glu Ser Asp Asn Asn Ile Arg Gln Ile Asn Gln Glu Ala Ala His Arg
225 230 235 240

Arg Phe Arg Ser Arg Arg His Ile Ser Glu Asp Leu Glu Pro Glu Pro
245 250 255

Ser Glu Gly Gly Asp Val Pro Glu Pro Trp Glu Thr Ile Ser Glu Glu
260 265 270

Val Asn Ile Ala Gly Asp Ser Leu Gly Leu Ala Leu Pro Pro Pro Pro
275 280 285

Ala Ser Pro Gly Ser Arg Thr Ser Pro Gln Glu Leu Ser Glu Glu Leu
290 295 300

Ser Arg Arg Leu Gln Ile Thr Pro Asp Ser Asn Gly Glu Gln Phe Ser
305 310 315 320

Ser Leu Ile Gln Arg Glu Pro Ser Ser Arg Leu Arg Ser Cys Ser Val

				325				330				335				
Thr	Asp	Ala	Val	Ala	Glu	Gln	Gly	His	Leu	Pro	Pro	Pro	Ser	Val	Ala	
			340				345						350			
Tyr	Val	His	Thr	Thr	Pro	Gly	Leu	Pro	Ser	Gly	Trp	Glu	Glu	Arg	Lys	
			355				360						365			
Asp	Ala	Lys	Gly	Arg	Thr	Tyr	Tyr	Val	Asn	His	Asn	Asn	Arg	Thr	Thr	
		370				375					380					
Thr	Trp	Thr	Arg	Pro	Ile	Met	Gln	Leu	Ala	Glu	Asp	Gly	Ala	Ser	Gly	
385					390					395					400	
Ser	Ala	Thr	Asn	Ser	Asn	Asn	His	Leu	Ile	Glu	Pro	Gln	Ile	Arg	Arg	
			405					410					415			
Pro	Arg	Ser	Leu	Ser	Ser	Pro	Thr	Val	Thr	Leu	Ser	Ala	Pro	Leu	Glu	
			420					425					430			
Gly	Ala	Lys	Asp	Ser	Pro	Val	Arg	Arg	Ala	Val	Lys	Asp	Thr	Leu	Ser	
		435					440					445				
Asn	Pro	Gln	Ser	Pro	Gln	Pro	Ser	Pro	Tyr	Asn	Ser	Pro	Lys	Pro	Gln	
		450					455					460				
His	Lys	Val	Thr	Gln	Ser	Phe	Leu	Pro	Pro	Gly	Trp	Glu	Met	Arg	Ile	
465					470					475					480	
Ala	Pro	Asn	Gly	Arg	Pro	Phe	Phe	Ile	Asp	His	Asn	Thr	Lys	Thr	Thr	
			485					490					495			
Thr	Trp	Glu	Asp	Pro	Arg	Leu	Lys	Phe	Pro	Val	His	Met	Arg	Ser	Lys	
			500					505					510			
Thr	Ser	Leu	Asn	Pro	Asn	Asp	Leu	Gly	Pro	Leu	Pro	Pro	Gly	Trp	Glu	
		515					520					525				
Glu	Arg	Ile	His	Leu	Asp	Gly	Arg	Thr	Phe	Tyr	Ile	Asp	His	Asn	Ser	
		530					535					540				
Lys	Ile	Thr	Gln	Trp	Glu	Asp	Pro	Arg	Leu	Gln	Asn	Pro	Ala	Ile	Thr	
545					550					555					560	

Gly Pro Ala Val Pro Tyr Ser Arg Glu Phe Lys Gln Lys Tyr Asp Tyr
565 570 575

Phe Arg Lys Lys Leu Lys Lys Pro Ala Asp Ile Pro Asn Arg Phe Glu
580 585 590

Met Lys Leu His Arg Asn Asn Ile Phe Glu Glu Ser Tyr Arg Arg Ile
595 600 605

Met Ser Val Lys Arg Pro Asp Val Leu Lys Ala Arg Leu Trp Ile Glu
610 615 620

Phe Glu Ser Glu Lys Gly Leu Asp Tyr Gly Gly Val Ala Arg Glu Trp
625 630 635 640

Phe Phe Leu Leu Ser Lys Glu Met Phe Asn Pro Tyr Tyr Gly Leu Phe
645 650 655

Glu Tyr Ser Ala Thr Asp Asn Tyr Thr Leu Gln Ile Asn Pro Asn Ser
660 665 670

Gly Leu Cys Asn Glu Asp His Leu Ser Tyr Phe Thr Phe Ile Gly Arg
675 680 685

Val Ala Gly Leu Ala Val Phe His Gly Lys Leu Leu Asp Gly Phe Phe
690 695 700

Ile Arg Pro Phe Tyr Lys Met Met Leu Gly Lys Gln Ile Thr Leu Asn
705 710 715 720

Asp Met Glu Ser Val Asp Ser Glu Tyr Tyr Asn Ser Leu Lys Trp Ile
725 730 735

Leu Glu Asn Asp Pro Thr Glu Leu Asp Leu Met Phe Cys Ile Asp Glu
740 745 750

Glu Asn Phe Gly Gln Thr Tyr Gln Val Asp Leu Lys Pro Asn Gly Ser
755 760 765

Glu Ile Met Val Thr Asn Glu Asn Lys Arg Glu Tyr Ile Asp Leu Val
770 775 780

Ile Gln Trp Arg Phe Val Asn Arg Val Gln Lys Gln Met Asn Ala Phe
785 790 795 800

Leu Glu Gly Phe Thr Glu Leu Leu Pro Ile Asp Leu Ile Lys Ile Phe
805 810 815

Asp Glu Asn Glu Leu Glu Leu Leu Met Cys Gly Leu Gly Asp Val Asp
820 825 830

Val Asn Asp Trp Arg Gln His Ser Ile Tyr Lys Asn Gly Tyr Cys Pro
835 840 845

Asn His Pro Val Ile Gln Trp Phe Trp Lys Ala Val Leu Leu Met Asp
850 855 860

Ala Glu Lys Arg Ile Arg Leu Leu Gln Phe Val Thr Gly Thr Ser Arg
865 870 875 880

Val Pro Met Asn Gly Phe Ala Glu Leu Tyr Gly Ser Asn Gly Pro Gln
885 890 895

Leu Phe Thr Ile Glu Gln Trp Gly Ser Pro Glu Lys Leu Pro Arg Ala
900 905 910

His Thr Cys Phe Asn Arg Leu Asp Leu Pro Pro Tyr Glu Thr Phe Glu
915 920 925

Asp Leu Arg Glu Lys Leu Leu Met Ala Val Glu Asn Ala Gln Gly Phe
930 935 940

Glu Gly Val Asp
945

<210> 259
<211> 287
<212> PRT
<213> homo sapiens

<400> 259

Met Ala Ala Pro Arg Gln Ile Pro Ser His Ile Val Arg Leu Lys Pro
1 5 10 15

Ser Cys Ser Thr Asp Ser Ser Phe Thr Arg Thr Pro Val Pro Thr Val

20

25

30

Ser Leu Ala Ser Arg Glu Leu Pro Val Ser Ser Trp Gln Val Thr Glu
 35 40 45

Pro Ser Ser Lys Asn Leu Trp Glu Gln Ile Cys Lys Glu Tyr Glu Ala
 50 55 60

Glu Gln Pro Pro Phe Pro Glu Gly Tyr Lys Val Lys Gln Glu Pro Val
 65 70 75 80

Ile Thr Val Ala Pro Val Glu Glu Met Leu Phe His Gly Phe Ser Ala
 85 90 95

Glu His Tyr Phe Pro Val Ser His Phe Thr Met Ile Ser Arg Thr Pro
 100 105 110

Cys Pro Gln Asp Lys Ser Glu Thr Ile Asn Pro Lys Thr Cys Ser Pro
 115 120 125

Lys Glu Tyr Leu Glu Thr Phe Ile Phe Pro Val Leu Leu Pro Gly Met
 130 135 140

Ala Ser Leu Leu His Gln Ala Lys Lys Glu Lys Cys Phe Glu Arg Lys
 145 150 155 160

Arg Thr Lys Phe Ile Ala Cys Asp Phe Leu Thr Glu Trp Leu Tyr Asn
 165 170 175

Gln Asn Pro Lys Arg Ala Gly Glu Pro Phe Thr Glu Phe Phe Ser Ile
 180 185 190

Pro Phe Val Glu Glu Arg Leu Lys Gln His Pro Arg Pro Pro Ile Pro
 195 200 205

Leu Ser Leu Leu Leu Thr Glu Glu Glu Ala Ala Leu Tyr Ile Gln Ser
 210 215 220

Phe Trp Arg Ala Cys Val Val Arg Cys Asp Pro Glu Ile Gln Glu Leu
 225 230 235 240

Arg Gln Trp Gln Lys Lys Leu Arg Glu Ala Lys His Ile His Gln Gln
 245 250 255

Val Lys Ile Phe Trp Ala Lys Gln Glu Gln Lys Val Lys Cys Lys Met
260 265 270

Glu Asp Asp Ala Val Pro Ala Ala Lys Met Lys Ile Pro Ser Ser
275 280 285

<210> 260
<211> 798
<212> PRT
<213> homo sapiens

<400> 260

Met Ala Trp Asp Met Cys Asn Gln Asp Ser Glu Ser Val Trp Ser Asp
1 5 10 15

Ile Glu Cys Ala Ala Leu Val Gly Glu Asp Gln Pro Leu Cys Pro Asp
20 25 30

Leu Pro Glu Leu Asp Leu Ser Glu Leu Asp Val Asn Asp Leu Asp Thr
35 40 45

Asp Ser Phe Leu Gly Gly Leu Lys Trp Cys Ser Asp Gln Ser Glu Ile
50 55 60

Ile Ser Asn Gln Tyr Asn Asn Glu Pro Ser Asn Ile Phe Glu Lys Ile
65 70 75 80

Asp Glu Glu Asn Glu Ala Asn Leu Leu Ala Val Leu Thr Glu Thr Leu
85 90 95

Asp Ser Leu Pro Val Asp Glu Asp Gly Leu Pro Ser Phe Asp Ala Leu
100 105 110

Thr Asp Gly Asp Val Thr Thr Asp Asn Glu Ala Ser Pro Ser Ser Met
115 120 125

Pro Asp Gly Thr Pro Pro Pro Gln Glu Ala Glu Glu Pro Ser Leu Leu
130 135 140

Lys Lys Leu Leu Leu Ala Pro Ala Asn Thr Gln Leu Ser Tyr Asn Glu
145 150 155 160

Cys Ser Gly Leu Ser Thr Gln Asn His Ala Asn His Asn His Arg Ile
165 170 175

Arg Thr Asn Pro Ala Ile Val Lys Thr Glu Asn Ser Trp Ser Asn Lys
180 185 190

Ala Lys Ser Ile Cys Gln Gln Gln Lys Pro Gln Arg Arg Pro Cys Ser
195 200 205

Glu Leu Leu Lys Tyr Leu Thr Thr Asn Asp Asp Pro Pro His Thr Lys
210 215 220

Pro Thr Glu Asn Arg Asn Ser Ser Arg Asp Lys Cys Thr Ser Lys Lys
225 230 235 240

Lys Ser His Thr Gln Ser Gln Ser Gln His Leu Gln Ala Lys Pro Thr
245 250 255

Thr Leu Ser Leu Pro Leu Thr Pro Glu Ser Pro Asn Asp Pro Lys Gly
260 265 270

Ser Pro Phe Glu Asn Lys Thr Ile Glu Arg Thr Leu Ser Val Glu Leu
275 280 285

Ser Gly Thr Ala Gly Leu Thr Pro Pro Thr Thr Pro Pro His Lys Ala
290 295 300

Asn Gln Asp Asn Pro Phe Arg Ala Ser Pro Lys Leu Lys Ser Ser Cys
305 310 315 320

Lys Thr Val Val Pro Pro Pro Ser Lys Lys Pro Arg Tyr Ser Glu Ser
325 330 335

Ser Gly Thr Gln Gly Asn Asn Ser Thr Lys Lys Gly Pro Glu Gln Ser
340 345 350

Glu Leu Tyr Ala Gln Leu Ser Lys Ser Ser Val Leu Thr Gly Gly His
355 360 365

Glu Glu Arg Lys Thr Lys Arg Pro Ser Leu Arg Leu Phe Gly Asp His
370 375 380

Asp Tyr Cys Gln Ser Ile Asn Ser Lys Thr Glu Ile Leu Ile Asn Ile

385					390						395				400
Ser	Gln	Glu	Leu	Gln	Asp	Ser	Arg	Gln	Leu	Glu	Asn	Lys	Asp	Val	Ser
				405					410					415	
Ser	Asp	Trp	Gln	Gly	Gln	Ile	Cys	Ser	Ser	Thr	Asp	Ser	Asp	Gln	Cys
			420					425					430		
Tyr	Leu	Arg	Glu	Thr	Leu	Glu	Ala	Ser	Lys	Gln	Val	Ser	Pro	Cys	Ser
		435					440					445			
Thr	Arg	Lys	Gln	Leu	Gln	Asp	Gln	Glu	Ile	Arg	Ala	Glu	Leu	Asn	Lys
	450					455					460				
His	Phe	Gly	His	Pro	Ser	Gln	Ala	Val	Phe	Asp	Asp	Glu	Ala	Asp	Lys
465					470					475					480
Thr	Gly	Glu	Leu	Arg	Asp	Ser	Asp	Phe	Ser	Asn	Glu	Gln	Phe	Ser	Lys
				485					490					495	
Leu	Pro	Met	Phe	Ile	Asn	Ser	Gly	Leu	Ala	Met	Asp	Gly	Leu	Phe	Asp
			500					505					510		
Asp	Ser	Glu	Asp	Glu	Ser	Asp	Lys	Leu	Ser	Tyr	Pro	Trp	Asp	Gly	Thr
		515					520					525			
Gln	Ser	Tyr	Ser	Leu	Phe	Asn	Val	Ser	Pro	Ser	Cys	Ser	Ser	Phe	Asn
	530					535					540				
Ser	Pro	Cys	Arg	Asp	Ser	Val	Ser	Pro	Pro	Lys	Ser	Leu	Phe	Ser	Gln
545					550					555					560
Arg	Pro	Gln	Arg	Met	Arg	Ser	Arg	Ser	Arg	Ser	Phe	Ser	Arg	His	Arg
				565					570					575	
Ser	Cys	Ser	Arg	Ser	Pro	Tyr	Ser	Arg	Ser	Arg	Ser	Arg	Ser	Pro	Gly
			580					585					590		
Ser	Arg	Ser	Ser	Ser	Arg	Ser	Cys	Tyr	Tyr	Tyr	Glu	Ser	Ser	His	Tyr
		595					600					605			
Arg	His	Arg	Thr	His	Arg	Asn	Ser	Pro	Leu	Tyr	Val	Arg	Ser	Arg	Ser
	610					615					620				

Arg Ser Pro Tyr Ser Arg Arg Pro Arg Tyr Asp Ser Tyr Glu Glu Tyr
625 630 635 640

Gln His Glu Arg Leu Lys Arg Glu Glu Tyr Arg Arg Glu Tyr Glu Lys
645 650 655

Arg Glu Ser Glu Arg Ala Lys Gln Arg Glu Arg Gln Arg Gln Lys Ala
660 665 670

Ile Glu Glu Arg Arg Val Ile Tyr Val Gly Lys Ile Arg Pro Asp Thr
675 680 685

Thr Arg Thr Glu Leu Arg Asp Arg Phe Glu Val Phe Gly Glu Ile Glu
690 695 700

Glu Cys Thr Val Asn Leu Arg Asp Asp Gly Asp Ser Tyr Gly Phe Ile
705 710 715 720

Thr Tyr Arg Tyr Thr Cys Asp Ala Phe Ala Ala Leu Glu Asn Gly Tyr
725 730 735

Thr Leu Arg Arg Ser Asn Glu Thr Asp Phe Glu Leu Tyr Phe Cys Gly
740 745 750

Arg Lys Gln Phe Phe Lys Ser Asn Tyr Ala Asp Leu Asp Ser Asn Ser
755 760 765

Asp Asp Phe Asp Pro Ala Ser Thr Lys Ser Lys Tyr Asp Ser Leu Asp
770 775 780

Phe Asp Ser Leu Leu Lys Glu Ala Gln Arg Ser Leu Arg Arg
785 790 795

<210> 261
<211> 633
<212> PRT
<213> homo sapiens

<400> 261

Met Leu Met Arg Lys Val Pro Gly Phe Val Pro Ala Ser Pro Trp Gly
1 5 10 15

Leu Arg Leu Pro Gln Lys Phe Leu Phe Leu Leu Phe Leu Ser Gly Leu
20 25 30

Val Thr Leu Cys Phe Gly Ala Leu Phe Leu Leu Pro His Ser Ser Arg
35 40 45

Leu Lys Arg Leu Phe Leu Ala Pro Arg Thr Gln Gln Pro Gly Leu Glu
50 55 60

Val Val Ala Glu Ile Ala Gly His Ala Pro Ala Arg Glu Gln Glu Pro
65 70 75 80

Pro Pro Asn Pro Ala Pro Ala Ala Pro Ala Pro Gly Glu Asp Asp Pro
85 90 95

Ser Ser Trp Ala Ser Pro Arg Arg Arg Lys Gly Gly Leu Arg Arg Thr
100 105 110

Arg Pro Thr Gly Pro Arg Glu Glu Ala Thr Ala Ala Arg Gly Asn Ser
115 120 125

Ile Pro Ala Ser Arg Pro Gly Asp Glu Gly Val Pro Phe Arg Phe Asp
130 135 140

Phe Asn Ala Phe Arg Ser Arg Leu Arg His Pro Val Leu Gly Thr Arg
145 150 155 160

Ala Asp Glu Ser Gln Glu Pro Gln Ser Gln Val Arg Ala Gln Arg Glu
165 170 175

Lys Ile Lys Glu Met Met Gln Phe Ala Trp Gln Ser Tyr Lys Arg Tyr
180 185 190

Ala Met Gly Lys Asn Glu Leu Arg Pro Leu Thr Lys Asp Gly Tyr Glu
195 200 205

Gly Asn Met Phe Gly Gly Leu Ser Gly Ala Thr Val Ile Asp Ser Leu
210 215 220

Asp Thr Leu Tyr Leu Met Glu Leu Lys Glu Glu Phe Gln Glu Ala Lys
225 230 235 240

Ala Trp Val Gly Glu Ser Phe His Leu Asn Val Ser Gly Glu Ala Ser

245								250				255				
Leu	Phe	Glu	Val	Asn	Ile	Arg	Tyr	Ile	Gly	Gly	Leu	Leu	Ser	Ala	Phe	
			260					265				270				
Tyr	Leu	Thr	Gly	Glu	Glu	Val	Phe	Arg	Ile	Lys	Ala	Ile	Arg	Leu	Gly	
			275					280				285				
Glu	Lys	Leu	Leu	Pro	Ala	Phe	Asn	Thr	Pro	Thr	Gly	Ile	Pro	Lys	Gly	
		290					295				300					
Val	Val	Ser	Phe	Lys	Ser	Gly	Asn	Trp	Gly	Trp	Ala	Thr	Ala	Gly	Ser	
305						310				315		320				
Ser	Ser	Ile	Leu	Ala	Glu	Phe	Gly	Ser	Leu	His	Leu	Glu	Phe	Leu	His	
				325					330		335					
Leu	Thr	Glu	Leu	Ser	Gly	Asn	Gln	Val	Phe	Ala	Glu	Lys	Ala	Arg	Lys	
			340					345		350						
Val	Arg	Asn	Ile	Arg	Lys	Val	Leu	Arg	Lys	Ile	Glu	Lys	Pro	Phe	Gly	
		355					360					365				
Leu	Tyr	Pro	Asn	Phe	Leu	Ser	Pro	Val	Ser	Gly	Asn	Trp	Val	Gln	His	
		370					375					380				
His	Val	Ser	Val	Gly	Gly	Leu	Gly	Asp	Ser	Phe	Tyr	Glu	Tyr	Leu	Ile	
385						390					395		400			
Lys	Ser	Trp	Leu	Met	Ser	Gly	Lys	Thr	Asp	Met	Glu	Ala	Lys	Asn	Met	
				405					410		415					
Tyr	Tyr	Glu	Ala	Leu	Glu	Ala	Ile	Glu	Thr	Tyr	Leu	Leu	Asn	Val	Ser	
			420					425					430			
Pro	Gly	Gly	Leu	Thr	Tyr	Ile	Ala	Glu	Trp	Arg	Gly	Gly	Ile	Leu	Asp	
		435					440					445				
His	Lys	Met	Gly	His	Leu	Ala	Cys	Phe	Ser	Gly	Gly	Met	Ile	Ala	Leu	
		450					455					460				
Gly	Ala	Glu	Asp	Ala	Lys	Glu	Glu	Lys	Arg	Ala	His	Tyr	Arg	Glu	Leu	
465						470					475		480			

Ala Ala Gln Ile Thr Lys Thr Cys His Glu Ser Tyr Ala Arg Ser Asp
485 490 495

Thr Lys Leu Gly Pro Glu Ala Phe Trp Phe Asn Ser Gly Arg Glu Ala
500 505 510

Val Ala Thr Gln Leu Ser Glu Ser Tyr Tyr Ile Leu Arg Pro Glu Val
515 520 525

Val Glu Ser Tyr Met Tyr Leu Trp Arg Gln Thr His Asn Pro Ile Tyr
530 535 540

Arg Glu Trp Gly Trp Glu Val Val Leu Ala Leu Glu Lys Tyr Cys Arg
545 550 555 560

Thr Glu Ala Gly Phe Ser Gly Ile Gln Asp Val Tyr Ser Ser Thr Pro
565 570 575

Asn His Asp Asn Lys Gln Gln Ser Phe Phe Leu Ala Glu Thr Leu Lys
580 585 590

Tyr Leu Tyr Leu Leu Phe Ser Glu Asp Asp Leu Leu Ser Leu Glu Asp
595 600 605

Trp Val Phe Asn Thr Glu Ala His Pro Leu Pro Val Asn His Ser Asp
610 615 620

Ser Ser Gly Arg Ala Trp Gly Arg His
625 630

<210> 262
<211> 413
<212> PRT
<213> homo sapiens

<400> 262

Met Ala Pro Pro Ser Val Phe Ala Glu Val Pro Gln Ala Gln Pro Val
1 5 10 15

Leu Val Phe Lys Leu Thr Ala Asp Phe Arg Glu Asp Pro Asp Pro Arg
20 25 30

Lys Val Asn Leu Gly Val Gly Ala Tyr Arg Thr Asp Asp Cys His Pro
35 40 45

Trp Val Leu Pro Val Val Lys Lys Val Glu Gln Lys Ile Ala Asn Asp
50 55 60

Asn Ser Leu Asn His Glu Tyr Leu Pro Ile Leu Gly Leu Ala Glu Phe
65 70 75 80

Arg Ser Cys Ala Ser Arg Leu Ala Leu Gly Asp Asp Ser Pro Ala Leu
85 90 95

Lys Glu Lys Arg Val Gly Gly Val Gln Ser Leu Gly Gly Thr Gly Ala
100 105 110

Leu Arg Ile Gly Ala Asp Phe Leu Ala Arg Trp Tyr Asn Gly Thr Asn
115 120 125

Asn Lys Asn Thr Pro Val Tyr Val Ser Ser Pro Thr Trp Glu Asn His
130 135 140

Asn Ala Val Phe Ser Ala Ala Gly Phe Lys Asp Ile Arg Ser Tyr Arg
145 150 155 160

Tyr Trp Asp Ala Glu Lys Arg Gly Leu Asp Leu Gln Gly Phe Leu Asn
165 170 175

Asp Leu Glu Asn Ala Pro Glu Phe Ser Ile Val Val Leu His Ala Cys
180 185 190

Ala His Asn Pro Thr Gly Ile Asp Pro Thr Pro Glu Gln Trp Lys Gln
195 200 205

Ile Ala Ser Val Met Lys His Arg Phe Leu Phe Pro Phe Phe Asp Ser
210 215 220

Ala Tyr Gln Gly Phe Ala Ser Gly Asn Leu Glu Arg Asp Ala Trp Ala
225 230 235 240

Ile Arg Tyr Phe Val Ser Glu Gly Phe Glu Phe Phe Cys Ala Gln Ser
245 250 255

Phe Ser Lys Asn Phe Gly Leu Tyr Asn Glu Arg Val Gly Asn Leu Thr

260	265	270
Val Val Gly Lys Glu Pro Glu Ser Ile Leu Gln Val Leu Ser Gln Met		
275	280	285
Glu Lys Ile Val Arg Ile Thr Trp Ser Asn Pro Pro Ala Gln Gly Ala		
290	295	300
Arg Ile Val Ala Ser Thr Leu Ser Asn Pro Glu Leu Phe Glu Glu Trp		
305	310	315
Thr Gly Asn Val Lys Thr Met Ala Asp Arg Ile Leu Thr Met Arg Ser		
325	330	335
Glu Leu Arg Ala Arg Leu Glu Ala Leu Lys Thr Pro Gly Thr Trp Asn		
340	345	350
His Ile Thr Asp Gln Ile Gly Met Phe Ser Phe Thr Gly Leu Asn Pro		
355	360	365
Lys Gln Val Glu Tyr Leu Val Asn Glu Lys His Ile Tyr Leu Leu Pro		
370	375	380
Ser Gly Arg Ile Asn Val Ser Gly Leu Thr Thr Lys Asn Leu Asp Tyr		
385	390	395
Val Ala Thr Ser Ile His Glu Ala Val Thr Lys Ile Gln		
405	410	
<210> 263		
<211> 482		
<212> PRT		
<213> homo sapiens		
<400> 263		
Met Ala Arg Leu Leu Arg Ser Ala Thr Trp Glu Leu Phe Pro Trp Arg		
1	5	10
Gly Tyr Cys Ser Gln Lys Ala Lys Gly Glu Leu Cys Arg Asp Phe Val		
20	25	30
Glu Ala Leu Lys Ala Val Val Gly Gly Ser His Val Ser Thr Ala Ala		
35	40	45

Val Val Arg Glu Gln His Gly Arg Asp Glu Ser Val His Arg Cys Glu
50 55 60

Pro Pro Asp Ala Val Val Trp Pro Gln Asn Val Glu Gln Val Ser Arg
65 70 75 80

Leu Ala Ala Leu Cys Tyr Arg Gln Gly Val Pro Ile Ile Pro Phe Gly
85 90 95

Thr Gly Thr Gly Leu Glu Gly Gly Val Cys Ala Val Gln Gly Gly Val
100 105 110

Cys Val Asn Leu Thr His Met Asp Arg Ile Leu Glu Leu Asn Gln Glu
115 120 125

Asp Phe Ser Val Val Val Glu Pro Gly Val Thr Arg Lys Ala Leu Asn
130 135 140

Ala His Leu Arg Asp Ser Gly Leu Trp Phe Pro Val Asp Pro Gly Ala
145 150 155 160

Asp Ala Ser Leu Cys Gly Met Ala Ala Thr Gly Ala Ser Gly Thr Asn
165 170 175

Ala Val Arg Tyr Gly Thr Met Arg Asp Asn Val Leu Asn Leu Glu Val
180 185 190

Val Leu Pro Asp Gly Arg Leu Leu His Thr Ala Gly Arg Gly Arg His
195 200 205

Phe Arg Lys Ser Ala Ala Gly Tyr Asn Leu Thr Gly Leu Phe Val Gly
210 215 220

Ser Glu Gly Thr Leu Gly Leu Ile Thr Ala Thr Thr Leu Arg Leu His
225 230 235 240

Pro Ala Pro Glu Ala Thr Val Ala Ala Thr Cys Ala Phe Pro Ser Val
245 250 255

Gln Ala Ala Val Asp Ser Thr Val His Ile Leu Gln Ala Ala Val Pro
260 265 270

Val Ala Arg Ile Glu Phe Leu Asp Glu Val Met Met Asp Ala Cys Asn
275 280 285

Arg Tyr Ser Lys Leu Asn Cys Leu Val Ala Pro Thr Leu Phe Leu Glu
290 295 300

Phe His Gly Ser Gln Gln Ala Leu Glu Glu Gln Leu Gln Arg Thr Glu
305 310 315 320

Glu Ile Val Gln Gln Asn Gly Ala Ser Asp Phe Ser Trp Ala Lys Glu
325 330 335

Arg Ser Ala Ala Gly Phe Gly Gln His Gly Thr Met Pro Gly Thr Ala
340 345 350

Leu Ala Thr Arg Pro Gly Cys Lys Gly Tyr Ser Thr Asp Val Cys Val
355 360 365

Pro Ile Ser Arg Leu Pro Glu Ile Val Val Gln Thr Lys Glu Asp Leu
370 375 380

Asn Ala Ser Gly Leu Thr Gly Ser Ile Val Gly His Val Gly Asp Gly
385 390 395 400

Asn Phe His Cys Ile Leu Leu Val Asn Pro Asp Asp Ala Glu Glu Leu
405 410 415

Gly Arg Val Lys Ala Phe Ala Glu Gln Leu Gly Arg Arg Ala Leu Ala
420 425 430

Leu His Gly Thr Cys Thr Gly Glu His Gly Ile Gly Met Gly Lys Arg
435 440 445

Gln Leu Leu Gln Glu Glu Val Gly Ala Val Gly Val Glu Thr Met Arg
450 455 460

Gln Leu Lys Ala Val Leu Asp Pro Gln Gly Leu Met Asn Pro Gly Lys
465 470 475 480

Val Leu

<210> 264

<211> 402
<212> PRT
<213> homo sapiens

<400> 264

Met Lys Glu Thr Arg Gly Tyr Gly Gly Asp Ala Pro Phe Cys Thr Arg
1 5 10 15

Leu Asn His Ser Tyr Thr Gly Met Trp Ala Pro Glu Arg Ser Ala Glu
20 25 30

Ala Arg Gly Asn Leu Thr Arg Pro Pro Gly Ser Gly Glu Asp Cys Gly
35 40 45

Ser Val Ser Val Ala Phe Pro Ile Thr Met Leu Leu Thr Gly Phe Val
50 55 60

Gly Asn Ala Leu Ala Met Leu Leu Val Ser Arg Ser Tyr Arg Arg Arg
65 70 75 80

Glu Ser Lys Arg Lys Lys Ser Phe Leu Leu Cys Ile Gly Trp Leu Ala
85 90 95

Leu Thr Asp Leu Val Gly Gln Leu Leu Thr Thr Pro Val Val Ile Val
100 105 110

Val Tyr Leu Ser Lys Gln Arg Trp Glu His Ile Asp Pro Ser Gly Arg
115 120 125

Leu Cys Thr Phe Phe Gly Leu Thr Met Thr Val Phe Gly Leu Ser Ser
130 135 140

Leu Phe Ile Ala Ser Ala Met Ala Val Glu Arg Ala Leu Ala Ile Arg
145 150 155 160

Ala Pro His Trp Tyr Ala Ser His Met Lys Thr Arg Ala Thr Arg Ala
165 170 175

Val Leu Leu Gly Val Trp Leu Ala Val Leu Ala Phe Ala Leu Leu Pro
180 185 190

Val Leu Gly Val Gly Gln Tyr Thr Val Gln Trp Pro Gly Thr Trp Cys
195 200 205

Phe Ile Ser Thr Gly Arg Gly Gly Asn Gly Thr Ser Ser Ser His Asn
210 215 220

Trp Gly Asn Leu Phe Phe Ala Ser Ala Phe Ala Phe Leu Gly Leu Leu
225 230 235 240

Ala Leu Thr Val Thr Phe Ser Cys Asn Leu Ala Thr Ile Lys Ala Leu
245 250 255

Val Ser Arg Cys Arg Ala Lys Ala Thr Ala Ser Gln Ser Ser Ala Gln
260 265 270

Trp Gly Arg Ile Thr Thr Glu Thr Ala Ile Gln Leu Met Gly Ile Met
275 280 285

Cys Val Leu Ser Val Cys Trp Ser Pro Leu Leu Ile Met Met Leu Lys
290 295 300

Met Ile Phe Asn Gln Thr Ser Val Glu His Cys Lys Thr His Thr Glu
305 310 315 320

Lys Gln Lys Glu Cys Asn Phe Phe Leu Ile Ala Val Arg Leu Ala Ser
325 330 335

Leu Asn Gln Ile Leu Asp Pro Trp Val Tyr Leu Leu Leu Arg Lys Ile
340 345 350

Leu Leu Arg Lys Phe Cys Gln Met Arg Lys Arg Arg Leu Arg Glu Gln
355 360 365

Glu Met Gly Pro Asp Gly Arg Cys Phe Cys His Ala Trp Arg Gln Val
370 375 380

Pro Arg Thr Trp Cys Ser Ser His Asp Arg Glu Pro Cys Ser Val Gln
385 390 395 400

Leu Ser

<210> 265
<211> 327
<212> PRT
<213> homo sapiens

<400> 265

Met Met Leu Ile Pro Thr His His Phe Arg Asn Ile Glu Arg Lys Pro
1 5 10 15

Glu Tyr Leu Gln Pro Glu Lys Cys Val Pro Pro Pro Tyr Pro Gly Pro
20 25 30

Val Gly Thr Met Trp Phe Ile Arg Asp Gly Cys Gly Ile Ala Cys Ala
35 40 45

Ile Val Thr Trp Phe Leu Val Leu Tyr Ala Glu Phe Val Val Leu Phe
50 55 60

Val Met Leu Ile Pro Ser Arg Asp Tyr Val Tyr Ser Ile Ile Asn Gly
65 70 75 80

Ile Val Phe Asn Leu Leu Ala Phe Leu Ala Leu Ala Ser His Cys Arg
85 90 95

Ala Met Leu Thr Asp Pro Gly Ala Val Pro Lys Gly Asn Ala Thr Lys
100 105 110

Glu Phe Ile Glu Ser Leu Gln Leu Lys Pro Gly Gln Val Val Tyr Lys
115 120 125

Cys Pro Lys Cys Cys Ser Ile Lys Pro Asp Arg Ala His His Cys Ser
130 135 140

Val Cys Lys Arg Cys Ile Arg Lys Met Asp His His Cys Pro Trp Val
145 150 155 160

Asn Asn Cys Val Gly Glu Asn Asn Gln Lys Tyr Phe Val Leu Phe Thr
165 170 175

Met Tyr Ile Ala Leu Ile Ser Leu His Ala Leu Ile Met Val Gly Phe
180 185 190

His Phe Leu His Cys Phe Glu Glu Asp Trp Thr Thr Tyr Gly Leu Asn
195 200 205

Arg Glu Glu Met Ala Glu Thr Gly Ile Ser Leu His Glu Lys Met Gln
210 215 220

Pro Leu Asn Phe Ser Ser Thr Glu Cys Ser Ser Phe Ser Pro Pro Thr
225 230 235 240

Thr Val Ile Leu Leu Ile Leu Leu Cys Phe Glu Gly Leu Leu Phe Leu
245 250 255

Ile Phe Thr Ser Val Met Phe Gly Thr Gln Val His Ser Ile Cys Thr
260 265 270

Asp Glu Thr Gly Ile Glu Gln Leu Lys Lys Glu Glu Arg Arg Trp Ala
275 280 285

Lys Lys Thr Lys Trp Met Asn Met Lys Ala Val Phe Gly His Pro Phe
290 295 300

Ser Leu Gly Trp Ala Ser Pro Phe Ala Thr Pro Asp Gln Gly Lys Ala
305 310 315 320

Asp Pro Tyr Gln Tyr Val Val
325

<210> 266
<211> 400
<212> PRT
<213> homo sapiens

<400> 266

Met Ser Gln Val Leu Gly Lys Pro Gln Pro Gln Asp Glu Asp Asp Ala
1 5 10 15

Glu Glu Glu Glu Glu Glu Asp Glu Leu Val Gly Leu Ala Asp Tyr Gly
20 25 30

Asp Gly Pro Asp Ser Ser Asp Ala Asp Pro Asp Ser Gly Thr Glu Glu
35 40 45

Gly Val Leu Asp Phe Ser Asp Pro Phe Ser Thr Glu Val Lys Pro Arg
50 55 60

Ile Leu Leu Met Gly Leu Arg Arg Ser Gly Lys Ser Ser Ile Gln Lys
65 70 75 80

Val Val Phe His Lys Met Ser Pro Asn Glu Thr Leu Phe Leu Glu Ser
85 90 95

Thr Asn Lys Ile Cys Arg Glu Asp Val Ser Asn Ser Ser Phe Val Asn
100 105 110

Phe Gln Ile Trp Asp Phe Pro Gly Gln Ile Asp Phe Phe Asp Pro Thr
115 120 125

Phe Asp Tyr Glu Met Ile Phe Arg Gly Thr Gly Ala Leu Ile Phe Val
130 135 140

Ile Asp Ser Gln Asp Asp Tyr Met Glu Ala Leu Ala Arg Leu His Leu
145 150 155 160

Thr Val Thr Arg Ala Tyr Lys Val Asn Thr Asp Ile Asn Phe Glu Val
165 170 175

Phe Ile His Lys Val Asp Gly Leu Ser Asp Asp His Lys Ile Glu Thr
180 185 190

Gln Arg Asp Ile His Gln Arg Ala Asn Asp Asp Leu Ala Asp Ala Gly
195 200 205

Leu Glu Lys Ile His Leu Ser Phe Tyr Leu Thr Ser Ile Tyr Asp His
210 215 220

Ser Ile Phe Glu Ala Phe Ser Lys Val Val Gln Lys Leu Ile Pro Gln
225 230 235 240

Leu Pro Thr Leu Glu Asn Leu Leu Asn Ile Phe Ile Ser Asn Ser Gly
245 250 255

Ile Glu Lys Ala Phe Leu Phe Asp Val Val Ser Lys Ile Tyr Ile Ala
260 265 270

Thr Asp Ser Thr Pro Val Asp Met Gln Thr Tyr Glu Leu Cys Cys Asp
275 280 285

Met Ile Asp Val Val Ile Asp Ile Ser Cys Ile Tyr Gly Leu Lys Glu
290 295 300

Asp Gly Ala Gly Thr Pro Tyr Asp Lys Glu Ser Thr Ala Ile Ile Lys

305						310						315						320
Leu	Asn	Asn	Thr	Thr	Val	Leu	Tyr	Leu	Lys	Glu	Val	Thr	Lys	Phe	Leu			
				325					330					335				
Ala	Leu	Val	Cys	Phe	Val	Arg	Glu	Glu	Ser	Phe	Glu	Arg	Lys	Gly	Leu			
				340					345					350				
Ile	Asp	Tyr	Asn	Phe	His	Cys	Phe	Arg	Lys	Ala	Ile	His	Glu	Val	Phe			
				355					360					365				
Glu	Val	Arg	Met	Lys	Val	Val	Lys	Ser	Arg	Lys	Val	Gln	Asn	Arg	Leu			
				370					375					380				
Gln	Lys	Lys	Lys	Arg	Ala	Thr	Pro	Asn	Gly	Thr	Pro	Arg	Val	Leu	Leu			
385					390					395					400			
<210> 267																		
<211> 381																		
<212> PRT																		
<213> homo sapiens																		
<400> 267																		
Met	Pro	Phe	Ser	Asn	Ser	His	Asn	Ala	Leu	Lys	Leu	Arg	Phe	Pro	Ala			
1					5					10					15			
Glu	Asp	Glu	Phe	Pro	Asp	Leu	Ser	Ala	His	Asn	Asn	His	Met	Ala	Lys			
				20					25					30				
Val	Leu	Thr	Pro	Glu	Leu	Tyr	Ala	Glu	Leu	Arg	Ala	Lys	Ser	Thr	Pro			
				35					40					45				
Ser	Gly	Phe	Thr	Leu	Asp	Asp	Val	Ile	Gln	Thr	Gly	Val	Asp	Asn	Pro			
				50					55					60				
Gly	His	Pro	Tyr	Ile	Met	Thr	Val	Gly	Cys	Val	Ala	Gly	Asp	Glu	Glu			
65					70					75					80			
Ser	Tyr	Glu	Val	Phe	Lys	Asp	Leu	Phe	Asp	Pro	Ile	Ile	Glu	Asp	Arg			
				85					90					95				
His	Gly	Gly	Tyr	Lys	Pro	Ser	Asp	Glu	His	Lys	Thr	Asp	Leu	Asn	Pro			
				100					105					110				

Asp Asn Leu Gln Gly Gly Asp Asp Leu Asp Pro Asn Tyr Val Leu Ser
115 120 125

Ser Arg Val Arg Thr Gly Arg Ser Ile Arg Gly Phe Cys Leu Pro Pro
130 135 140

His Cys Ser Arg Gly Glu Arg Arg Ala Ile Glu Lys Leu Ala Val Glu
145 150 155 160

Ala Leu Ser Ser Leu Asp Gly Asp Leu Ala Gly Arg Tyr Tyr Ala Leu
165 170 175

Lys Ser Met Thr Glu Ala Glu Gln Gln Gln Leu Ile Asp Asp His Phe
180 185 190

Leu Phe Asp Lys Pro Val Ser Pro Leu Leu Leu Ala Ser Gly Met Ala
195 200 205

Arg Asp Trp Pro Asp Ala Arg Gly Ile Trp His Asn Asp Asn Lys Thr
210 215 220

Phe Leu Val Trp Val Asn Glu Glu Asp His Leu Arg Val Ile Ser Met
225 230 235 240

Gln Lys Gly Gly Asn Met Lys Glu Val Phe Thr Arg Phe Cys Thr Gly
245 250 255

Leu Thr Gln Ile Glu Thr Leu Phe Lys Ser Lys Asp Tyr Glu Phe Met
260 265 270

Trp Asn Pro His Leu Gly Tyr Ile Leu Thr Cys Pro Ser Asn Leu Gly
275 280 285

Thr Gly Leu Arg Ala Gly Val His Ile Lys Leu Pro Asn Leu Gly Lys
290 295 300

His Glu Lys Phe Ser Glu Val Leu Lys Arg Leu Arg Leu Gln Lys Arg
305 310 315 320

Gly Thr Gly Gly Val Asp Thr Ala Ala Val Gly Gly Val Phe Asp Val
325 330 335

Ser Asn Ala Asp Arg Leu Gly Phe Ser Glu Val Glu Leu Val Gln Met
340 345 350

Val Val Asp Gly Val Lys Leu Leu Ile Glu Met Glu Gln Arg Leu Glu
355 360 365

Gln Gly Gln Ala Ile Asp Asp Leu Met Pro Ala Gln Lys
370 375 380

<210> 268
<211> 305
<212> PRT
<213> homo sapiens

<400> 268

Met Ala Ser Arg Lys Glu Asn Ala Lys Ser Ala Asn Arg Val Leu Arg
1 5 10 15

Ile Ser Gln Leu Asp Ala Leu Glu Leu Asn Lys Ala Leu Glu Gln Leu
20 25 30

Val Trp Ser Gln Phe Thr Gln Cys Phe His Gly Phe Lys Pro Gly Leu
35 40 45

Leu Ala Arg Phe Glu Pro Glu Val Lys Ala Cys Leu Trp Val Phe Leu
50 55 60

Trp Arg Phe Thr Ile Tyr Ser Lys Asn Ala Thr Val Gly Gln Ser Val
65 70 75 80

Leu Asn Ile Lys Tyr Lys Asn Asp Phe Ser Pro Asn Leu Arg Tyr Gln
85 90 95

Pro Pro Ser Lys Asn Gln Lys Ile Trp Tyr Ala Val Cys Thr Ile Gly
100 105 110

Gly Arg Trp Leu Glu Glu Arg Cys Tyr Asp Leu Phe Arg Asn His His
115 120 125

Leu Ala Ser Phe Gly Lys Val Lys Gln Cys Val Asn Phe Val Ile Gly
130 135 140

Leu Leu Lys Leu Gly Gly Leu Ile Asn Phe Leu Ile Phe Leu Gln Arg
145 150 155 160

Gly Lys Phe Ala Thr Leu Thr Glu Arg Leu Leu Gly Ile His Ser Val
165 170 175

Phe Cys Lys Pro Gln Asn Ile Cys Glu Val Gly Phe Glu Tyr Met Asn
180 185 190

Arg Glu Leu Leu Trp His Gly Phe Ala Glu Phe Leu Ile Phe Leu Leu
195 200 205

Pro Leu Ile Asn Val Gln Lys Leu Lys Ala Lys Leu Ser Ser Trp Cys
210 215 220

Ile Pro Leu Thr Gly Ala Pro Asn Ser Asp Asn Thr Leu Ala Thr Ser
225 230 235 240

Gly Lys Glu Cys Ala Leu Cys Gly Glu Trp Pro Thr Met Pro His Thr
245 250 255

Ile Gly Cys Glu His Ile Phe Cys Tyr Phe Cys Ala Lys Ser Ser Phe
260 265 270

Leu Phe Asp Val Tyr Phe Thr Cys Pro Lys Cys Gly Thr Glu Val His
275 280 285

Ser Leu Gln Pro Leu Lys Ser Gly Ile Glu Met Ser Glu Val Asn Ala
290 295 300

Leu
305

<210> 269
<211> 325
<212> PRT
<213> homo sapiens

<400> 269

Met Ala Asn Ala Leu Ala Ser Ala Thr Cys Glu Arg Cys Lys Gly Gly
1 5 10 15

Phe Ala Pro Ala Glu Lys Ile Val Asn Ser Asn Gly Glu Leu Tyr His
20 25 30

Glu Gln Cys Phe Val Cys Ala Gln Cys Phe Gln Gln Phe Pro Glu Gly
35 40 45

Leu Phe Tyr Glu Phe Glu Gly Arg Lys Tyr Cys Glu His Asp Phe Gln
50 55 60

Met Leu Phe Ala Pro Cys Cys His Gln Cys Gly Glu Phe Ile Ile Gly
65 70 75 80

Arg Val Ile Lys Ala Met Asn Asn Ser Trp His Pro Glu Cys Phe Arg
85 90 95

Cys Asp Leu Cys Gln Glu Val Leu Ala Asp Ile Gly Phe Val Lys Asn
100 105 110

Ala Gly Arg His Leu Cys Arg Pro Cys His Asn Arg Glu Lys Ala Arg
115 120 125

Gly Leu Gly Lys Tyr Ile Cys Gln Lys Cys His Ala Ile Ile Asp Glu
130 135 140

Gln Pro Leu Ile Phe Lys Asn Asp Pro Tyr His Pro Asp His Phe Asn
145 150 155 160

Cys Ala Asn Cys Gly Lys Glu Leu Thr Ala Asp Ala Arg Glu Leu Lys
165 170 175

Gly Glu Leu Tyr Cys Leu Pro Cys His Asp Lys Met Gly Val Pro Ile
180 185 190

Cys Gly Ala Cys Arg Arg Pro Ile Glu Gly Arg Val Val Asn Ala Met
195 200 205

Gly Lys Gln Trp His Val Glu His Phe Val Cys Ala Lys Cys Glu Lys
210 215 220

Pro Phe Leu Gly His Arg His Tyr Glu Arg Lys Gly Leu Ala Tyr Cys
225 230 235 240

Glu Thr His Tyr Asn Gln Leu Phe Gly Asp Val Cys Phe His Cys Asn
245 250 255

Arg Val Ile Glu Gly Asp Val Val Ser Ala Leu Asn Lys Ala Trp Cys

260

265

270

Val Asn Cys Phe Ala Cys Ser Thr Cys Asn Thr Lys Leu Thr Leu Lys
 275 280 285

Asn Lys Phe Val Glu Phe Asp Met Lys Pro Val Cys Lys Lys Cys Tyr
 290 295 300

Glu Lys Phe Pro Leu Glu Leu Lys Lys Arg Leu Lys Lys Leu Ala Glu
 305 310 315 320

Thr Leu Gly Arg Lys
 325

<210> 270
 <211> 913
 <212> PRT
 <213> homo sapiens

<400> 270

Met Thr Ser Arg Leu Arg Ala Leu Gly Gly Arg Ile Asn Asn Ile Arg
 1 5 10 15

Thr Ser Glu Leu Pro Lys Glu Lys Thr Arg Ser Glu Val Ile Cys Ser
 20 25 30

Ile His Phe Leu Asp Gly Val Val Gln Thr Phe Lys Val Thr Lys Gln
 35 40 45

Asp Thr Gly Gln Val Leu Leu Asp Met Val His Asn His Leu Gly Val
 50 55 60

Thr Glu Lys Glu Tyr Phe Gly Leu Gln His Asp Asp Asp Ser Val Asp
 65 70 75 80

Ser Pro Arg Trp Leu Glu Ala Ser Lys Ala Ile Arg Lys Gln Leu Lys
 85 90 95

Gly Gly Phe Pro Cys Thr Leu His Phe Arg Val Arg Phe Phe Ile Pro
 100 105 110

Asp Pro Asn Thr Leu Gln Gln Glu Gln Thr Arg His Leu Tyr Phe Leu
 115 120 125

Gln Leu Lys Met Asp Ile Cys Glu Gly Arg Leu Thr Cys Pro Leu Asn
130 135 140

Ser Ala Val Val Leu Ala Ser Tyr Ala Val Gln Ser His Phe Gly Asp
145 150 155 160

Tyr Asn Ser Ser Ile His His Pro Gly Tyr Leu Ser Asp Ser His Phe
165 170 175

Ile Pro Asp Gln Asn Glu Asp Phe Leu Thr Lys Val Glu Ser Leu His
180 185 190

Glu Gln His Ser Gly Leu Lys Gln Ser Glu Ala Glu Ser Cys Tyr Ile
195 200 205

Asn Ile Ala Arg Thr Leu Asp Phe Tyr Gly Val Glu Leu His Ser Gly
210 215 220

Arg Asp Leu His Asn Leu Asp Leu Met Ile Gly Ile Ala Ser Ala Gly
225 230 235 240

Val Ala Val Tyr Arg Lys Tyr Ile Cys Thr Ser Phe Tyr Pro Trp Val
245 250 255

Asn Ile Leu Lys Ile Ser Phe Lys Arg Lys Lys Phe Phe Ile His Gln
260 265 270

Arg Gln Lys Gln Ala Glu Ser Arg Glu His Ile Val Ala Phe Asn Met
275 280 285

Leu Asn Tyr Arg Ser Cys Lys Asn Leu Trp Lys Ser Cys Val Glu His
290 295 300

His Thr Phe Phe Gln Ala Lys Lys Leu Leu Pro Gln Glu Lys Asn Val
305 310 315 320

Leu Ser Gln Tyr Trp Thr Met Gly Ser Arg Asn Thr Lys Lys Ser Val
325 330 335

Asn Asn Gln Tyr Cys Lys Lys Val Ile Gly Gly Met Val Trp Asn Pro
340 345 350

Ala Met Arg Arg Ser Leu Ser Val Glu His Leu Glu Thr Lys Ser Leu
355 360 365

Pro Ser Arg Ser Pro Pro Ile Thr Pro Asn Trp Arg Ser Pro Arg Leu
370 375 380

Arg His Glu Ile Arg Lys Pro Arg His Ser Ser Ala Asp Asn Leu Ala
385 390 395 400

Asn Glu Met Thr Tyr Ile Thr Glu Thr Glu Asp Val Phe Tyr Thr Tyr
405 410 415

Lys Gly Ser Leu Ala Pro Gln Asp Ser Asp Ser Glu Val Ser Gln Asn
420 425 430

Arg Ser Pro His Gln Glu Ser Leu Ser Glu Asn Asn Pro Ala Gln Ser
435 440 445

Tyr Leu Thr Gln Lys Ser Ser Ser Ser Val Ser Pro Ser Ser Asn Ala
450 455 460

Pro Gly Ser Cys Ser Pro Asp Gly Val Asp Gln Gln Leu Leu Asp Asp
465 470 475 480

Phe His Arg Val Thr Lys Gly Gly Ser Thr Glu Asp Ala Ser Gln Tyr
485 490 495

Tyr Cys Asp Lys Asn Asp Asn Gly Asp Ser Tyr Leu Val Leu Ile Arg
500 505 510

Ile Thr Pro Asp Glu Asp Gly Lys Phe Gly Phe Asn Leu Lys Gly Gly
515 520 525

Val Asp Gln Lys Met Pro Leu Val Val Ser Arg Ile Asn Pro Glu Ser
530 535 540

Pro Ala Asp Thr Cys Ile Pro Lys Leu Asn Glu Gly Asp Gln Ile Val
545 550 555 560

Leu Ile Asn Gly Arg Asp Ile Ser Glu His Thr His Asp Gln Val Val
565 570 575

Met Phe Ile Lys Ala Ser Arg Glu Ser His Ser Arg Glu Leu Ala Leu

580

585

590

Val Ile Arg Arg Arg Ala Val Arg Ser Phe Ala Asp Phe Lys Ser Glu
595 600 605

Asp Glu Leu Asn Gln Leu Phe Pro Glu Ala Ile Phe Pro Met Cys Pro
610 615 620

Glu Gly Gly Asp Thr Leu Glu Gly Ser Met Ala Gln Leu Lys Lys Gly
625 630 635 640

Leu Glu Ser Gly Thr Val Leu Ile Gln Phe Glu Gln Leu Tyr Arg Lys
645 650 655

Lys Pro Gly Leu Ala Ile Thr Phe Ala Lys Leu Pro Gln Asn Leu Asp
660 665 670

Lys Asn Arg Tyr Lys Asp Val Leu Pro Tyr Asp Thr Thr Arg Val Leu
675 680 685

Leu Gln Gly Asn Glu Asp Tyr Ile Asn Ala Ser Tyr Val Asn Met Glu
690 695 700

Ile Pro Ala Ala Asn Leu Val Asn Lys Tyr Ile Ala Thr Gln Gly Pro
705 710 715 720

Leu Pro His Thr Cys Ala Gln Phe Trp Gln Val Val Trp Asp Gln Lys
725 730 735

Leu Ser Leu Ile Val Met Leu Thr Thr Leu Thr Glu Arg Gly Arg Thr
740 745 750

Lys Cys His Gln Tyr Trp Pro Asp Pro Pro Asp Val Met Asn His Gly
755 760 765

Gly Phe His Ile Gln Cys Gln Ser Glu Asp Cys Thr Ile Ala Tyr Val
770 775 780

Ser Arg Glu Met Leu Val Thr Asn Thr Gln Thr Gly Glu Glu His Thr
785 790 795 800

Val Thr His Leu Gln Tyr Val Ala Trp Pro Asp His Gly Val Pro Asp
805 810 815

Asp Ser Ser Asp Phe Leu Glu Phe Val Asn Tyr Val Arg Ser Leu Arg
820 825 830

Val Asp Ser Glu Pro Val Leu Val His Cys Ser Ala Gly Ile Gly Arg
835 840 845

Thr Gly Val Leu Val Thr Met Glu Thr Ala Met Cys Leu Thr Glu Arg
850 855 860

Asn Leu Pro Ile Tyr Pro Leu Asp Ile Val Arg Lys Met Arg Asp Gln
865 870 875 880

Arg Ala Met Met Val Gln Thr Ser Ser Gln Tyr Lys Phe Val Cys Glu
885 890 895

Ala Ile Leu Arg Val Tyr Glu Glu Gly Leu Val Gln Met Leu Asp Pro
900 905 910

Ser

<210> 271
<211> 2386
<212> PRT
<213> homo sapiens

<400> 271

Met Leu Arg Gly Pro Gly Pro Gly Leu Leu Leu Leu Ala Val Gln Cys
1 5 10 15

Leu Gly Thr Ala Val Pro Ser Thr Gly Ala Ser Lys Ser Lys Arg Gln
20 25 30

Ala Gln Gln Met Val Gln Pro Gln Ser Pro Val Ala Val Ser Gln Ser
35 40 45

Lys Pro Gly Cys Tyr Asp Asn Gly Lys His Tyr Gln Ile Asn Gln Gln
50 55 60

Trp Glu Arg Thr Tyr Leu Gly Asn Ala Leu Val Cys Thr Cys Tyr Gly
65 70 75 80

Gly Ser Arg Gly Phe Asn Cys Glu Ser Lys Pro Glu Ala Glu Glu Thr
85 90 95

Cys Phe Asp Lys Tyr Thr Gly Asn Thr Tyr Arg Val Gly Asp Thr Tyr
100 105 110

Glu Arg Pro Lys Asp Ser Met Ile Trp Asp Cys Thr Cys Ile Gly Ala
115 120 125

Gly Arg Gly Arg Ile Ser Cys Thr Ile Ala Asn Arg Cys His Glu Gly
130 135 140

Gly Gln Ser Tyr Lys Ile Gly Asp Thr Trp Arg Arg Pro His Glu Thr
145 150 155 160

Gly Gly Tyr Met Leu Glu Cys Val Cys Leu Gly Asn Gly Lys Gly Glu
165 170 175

Trp Thr Cys Lys Pro Ile Ala Glu Lys Cys Phe Asp His Ala Ala Gly
180 185 190

Thr Ser Tyr Val Val Gly Glu Thr Trp Glu Lys Pro Tyr Gln Gly Trp
195 200 205

Met Met Val Asp Cys Thr Cys Leu Gly Glu Gly Ser Gly Arg Ile Thr
210 215 220

Cys Thr Ser Arg Asn Arg Cys Asn Asp Gln Asp Thr Arg Thr Ser Tyr
225 230 235 240

Arg Ile Gly Asp Thr Trp Ser Lys Lys Asp Asn Arg Gly Asn Leu Leu
245 250 255

Gln Cys Ile Cys Thr Gly Asn Gly Arg Gly Glu Trp Lys Cys Glu Arg
260 265 270

His Thr Ser Val Gln Thr Thr Ser Ser Gly Ser Gly Pro Phe Thr Asp
275 280 285

Val Arg Ala Ala Val Tyr Gln Pro Gln Pro His Pro Gln Pro Pro Pro
290 295 300

Tyr Gly His Cys Val Thr Asp Ser Gly Val Val Tyr Ser Val Gly Met

305					310					315					320
Gln	Trp	Leu	Lys	Thr	Gln	Gly	Asn	Lys	Gln	Met	Leu	Cys	Thr	Cys	Leu
				325					330					335	
Gly	Asn	Gly	Val	Ser	Cys	Gln	Glu	Thr	Ala	Val	Thr	Gln	Thr	Tyr	Gly
			340					345					350		
Gly	Asn	Ser	Asn	Gly	Glu	Pro	Cys	Val	Leu	Pro	Phe	Thr	Tyr	Asn	Gly
		355					360					365			
Arg	Thr	Phe	Tyr	Ser	Cys	Thr	Thr	Glu	Gly	Arg	Gln	Asp	Gly	His	Leu
	370					375					380				
Trp	Cys	Ser	Thr	Thr	Ser	Asn	Tyr	Glu	Gln	Asp	Gln	Lys	Tyr	Ser	Phe
385					390					395					400
Cys	Thr	Asp	His	Thr	Val	Leu	Val	Gln	Thr	Arg	Gly	Gly	Asn	Ser	Asn
				405					410					415	
Gly	Ala	Leu	Cys	His	Phe	Pro	Phe	Leu	Tyr	Asn	Asn	His	Asn	Tyr	Thr
			420					425					430		
Asp	Cys	Thr	Ser	Glu	Gly	Arg	Arg	Asp	Asn	Met	Lys	Trp	Cys	Gly	Thr
		435					440					445			
Thr	Gln	Asn	Tyr	Asp	Ala	Asp	Gln	Lys	Phe	Gly	Phe	Cys	Pro	Met	Ala
	450					455					460				
Ala	His	Glu	Glu	Ile	Cys	Thr	Thr	Asn	Glu	Gly	Val	Met	Tyr	Arg	Ile
465					470					475					480
Gly	Asp	Gln	Trp	Asp	Lys	Gln	His	Asp	Met	Gly	His	Met	Met	Arg	Cys
				485					490					495	
Thr	Cys	Val	Gly	Asn	Gly	Arg	Gly	Glu	Trp	Thr	Cys	Ile	Ala	Tyr	Ser
			500					505					510		
Gln	Leu	Arg	Asp	Gln	Cys	Ile	Val	Asp	Asp	Ile	Thr	Tyr	Asn	Val	Asn
		515					520					525			
Asp	Thr	Phe	His	Lys	Arg	His	Glu	Glu	Gly	His	Met	Leu	Asn	Cys	Thr
	530					535					540				

Cys Phe Gly Gln Gly Arg Gly Arg Trp Lys Cys Asp Pro Val Asp Gln
545 550 555 560

Cys Gln Asp Ser Glu Thr Gly Thr Phe Tyr Gln Ile Gly Asp Ser Trp
565 570 575

Glu Lys Tyr Val His Gly Val Arg Tyr Gln Cys Tyr Cys Tyr Gly Arg
580 585 590

Gly Ile Gly Glu Trp His Cys Gln Pro Leu Gln Thr Tyr Pro Ser Ser
595 600 605

Ser Gly Pro Val Glu Val Phe Ile Thr Glu Thr Pro Ser Gln Pro Asn
610 615 620

Ser His Pro Ile Gln Trp Asn Ala Pro Gln Pro Ser His Ile Ser Lys
625 630 635 640

Tyr Ile Leu Arg Trp Arg Pro Lys Asn Ser Val Gly Arg Trp Lys Glu
645 650 655

Ala Thr Ile Pro Gly His Leu Asn Ser Tyr Thr Ile Lys Gly Leu Lys
660 665 670

Pro Gly Val Val Tyr Glu Gly Gln Leu Ile Ser Ile Gln Gln Tyr Gly
675 680 685

His Gln Glu Val Thr Arg Phe Asp Phe Thr Thr Thr Ser Thr Ser Thr
690 695 700

Pro Val Thr Ser Asn Thr Val Thr Gly Glu Thr Thr Pro Phe Ser Pro
705 710 715 720

Leu Val Ala Thr Ser Glu Ser Val Thr Glu Ile Thr Ala Ser Ser Phe
725 730 735

Val Val Ser Trp Val Ser Ala Ser Asp Thr Val Ser Gly Phe Arg Val
740 745 750

Glu Tyr Glu Leu Ser Glu Glu Gly Asp Glu Pro Gln Tyr Leu Asp Leu
755 760 765

Pro Ser Thr Ala Thr Ser Val Asn Ile Pro Asp Leu Leu Pro Gly Arg
770 775 780

Lys Tyr Ile Val Asn Val Tyr Gln Ile Ser Glu Asp Gly Glu Gln Ser
785 790 795 800

Leu Ile Leu Ser Thr Ser Gln Thr Thr Ala Pro Asp Ala Pro Pro Asp
805 810 815

Thr Thr Val Asp Gln Val Asp Asp Thr Ser Ile Val Val Arg Trp Ser
820 825 830

Arg Pro Gln Ala Pro Ile Thr Gly Tyr Arg Ile Val Tyr Ser Pro Ser
835 840 845

Val Glu Gly Ser Ser Thr Glu Leu Asn Leu Pro Glu Thr Ala Asn Ser
850 855 860

Val Thr Leu Ser Asp Leu Gln Pro Gly Val Gln Tyr Asn Ile Thr Ile
865 870 875 880

Tyr Ala Val Glu Glu Asn Gln Glu Ser Thr Pro Val Val Ile Gln Gln
885 890 895

Glu Thr Thr Gly Thr Pro Arg Ser Asp Thr Val Pro Ser Pro Arg Asp
900 905 910

Leu Gln Phe Val Glu Val Thr Asp Val Lys Val Thr Ile Met Trp Thr
915 920 925

Pro Pro Glu Ser Ala Val Thr Gly Tyr Arg Val Asp Val Ile Pro Val
930 935 940

Asn Leu Pro Gly Glu His Gly Gln Arg Leu Pro Ile Ser Arg Asn Thr
945 950 955 960

Phe Ala Glu Val Thr Gly Leu Ser Pro Gly Val Thr Tyr Tyr Phe Lys
965 970 975

Val Phe Ala Val Ser His Gly Arg Glu Ser Lys Pro Leu Thr Ala Gln
980 985 990

Gln Thr Thr Lys Leu Asp Ala Pro Thr Asn Leu Gln Phe Val Asn Glu
995 1000 1005

Thr Asp Ser Thr Val Leu Val Arg Trp Thr Pro Pro Arg Ala Gln
1010 1015 1020

Ile Thr Gly Tyr Arg Leu Thr Val Gly Leu Thr Arg Arg Gly Gln
1025 1030 1035

Pro Arg Gln Tyr Asn Val Gly Pro Ser Val Ser Lys Tyr Pro Leu
1040 1045 1050

Arg Asn Leu Gln Pro Ala Ser Glu Tyr Thr Val Ser Leu Val Ala
1055 1060 1065

Ile Lys Gly Asn Gln Glu Ser Pro Lys Ala Thr Gly Val Phe Thr
1070 1075 1080

Thr Leu Gln Pro Gly Ser Ser Ile Pro Pro Tyr Asn Thr Glu Val
1085 1090 1095

Thr Glu Thr Thr Ile Val Ile Thr Trp Thr Pro Ala Pro Arg Ile
1100 1105 1110

Gly Phe Lys Leu Gly Val Arg Pro Ser Gln Gly Gly Glu Ala Pro
1115 1120 1125

Arg Glu Val Thr Ser Asp Ser Gly Ser Ile Val Val Ser Gly Leu
1130 1135 1140

Thr Pro Gly Val Glu Tyr Val Tyr Thr Ile Gln Val Leu Arg Asp
1145 1150 1155

Gly Gln Glu Arg Asp Ala Pro Ile Val Asn Lys Val Val Thr Pro
1160 1165 1170

Leu Ser Pro Pro Thr Asn Leu His Leu Glu Ala Asn Pro Asp Thr
1175 1180 1185

Gly Val Leu Thr Val Ser Trp Glu Arg Ser Thr Thr Pro Asp Ile
1190 1195 1200

Thr Gly Tyr Arg Ile Thr Thr Thr Pro Thr Asn Gly Gln Gln Gly

1205		1210		1215
Asn Ser Leu Glu Glu Val Val His Ala Asp Gln Ser Ser Cys Thr				
1220		1225		1230
Phe Asp Asn Leu Ser Pro Gly Leu Glu Tyr Asn Val Ser Val Tyr				
1235		1240		1245
Thr Val Lys Asp Asp Lys Glu Ser Val Pro Ile Ser Asp Thr Ile				
1250		1255		1260
Ile Pro Ala Val Pro Pro Pro Thr Asp Leu Arg Phe Thr Asn Ile				
1265		1270		1275
Gly Pro Asp Thr Met Arg Val Thr Trp Ala Pro Pro Pro Ser Ile				
1280		1285		1290
Asp Leu Thr Asn Phe Leu Val Arg Tyr Ser Pro Val Lys Asn Glu				
1295		1300		1305
Glu Asp Val Ala Glu Leu Ser Ile Ser Pro Ser Asp Asn Ala Val				
1310		1315		1320
Val Leu Thr Asn Leu Leu Pro Gly Thr Glu Tyr Val Val Ser Val				
1325		1330		1335
Ser Ser Val Tyr Glu Gln His Glu Ser Thr Pro Leu Arg Gly Arg				
1340		1345		1350
Gln Lys Thr Gly Leu Asp Ser Pro Thr Gly Ile Asp Phe Ser Asp				
1355		1360		1365
Ile Thr Ala Asn Ser Phe Thr Val His Trp Ile Ala Pro Arg Ala				
1370		1375		1380
Thr Ile Thr Gly Tyr Arg Ile Arg His His Pro Glu His Phe Ser				
1385		1390		1395
Gly Arg Pro Arg Glu Asp Arg Val Pro His Ser Arg Asn Ser Ile				
1400		1405		1410
Thr Leu Thr Asn Leu Thr Pro Gly Thr Glu Tyr Val Val Ser Ile				
1415		1420		1425

Val Ala Leu Asn Gly Arg Glu Glu Ser Pro Leu Leu Ile Gly Gln
1430 1435 1440

Gln Ser Thr Val Ser Asp Val Pro Arg Asp Leu Glu Val Val Ala
1445 1450 1455

Ala Thr Pro Thr Ser Leu Leu Ile Ser Trp Asp Ala Pro Ala Val
1460 1465 1470

Thr Val Arg Tyr Tyr Arg Ile Thr Tyr Gly Glu Thr Gly Gly Asn
1475 1480 1485

Ser Pro Val Gln Glu Phe Thr Val Pro Gly Ser Lys Ser Thr Ala
1490 1495 1500

Thr Ile Ser Gly Leu Lys Pro Gly Val Asp Tyr Thr Ile Thr Val
1505 1510 1515

Tyr Ala Val Thr Gly Arg Gly Asp Ser Pro Ala Ser Ser Lys Pro
1520 1525 1530

Ile Ser Ile Asn Tyr Arg Thr Glu Ile Asp Lys Pro Ser Gln Met
1535 1540 1545

Gln Val Thr Asp Val Gln Asp Asn Ser Ile Ser Val Lys Trp Leu
1550 1555 1560

Pro Ser Ser Ser Pro Val Thr Gly Tyr Arg Val Thr Thr Thr Pro
1565 1570 1575

Lys Asn Gly Pro Gly Pro Thr Lys Thr Lys Thr Ala Gly Pro Asp
1580 1585 1590

Gln Thr Glu Met Thr Ile Glu Gly Leu Gln Pro Thr Val Glu Tyr
1595 1600 1605

Val Val Ser Val Tyr Ala Gln Asn Pro Ser Gly Glu Ser Gln Pro
1610 1615 1620

Leu Val Gln Thr Ala Val Thr Asn Ile Asp Arg Pro Lys Gly Leu
1625 1630 1635

Ala Phe Thr Asp Val Asp Val Asp Ser Ile Lys Ile Ala Trp Glu
1640 1645 1650

Ser Pro Gln Gly Gln Val Ser Arg Tyr Arg Val Thr Tyr Ser Ser
1655 1660 1665

Pro Glu Asp Gly Ile His Glu Leu Phe Pro Ala Pro Asp Gly Glu
1670 1675 1680

Glu Asp Thr Ala Glu Leu Gln Gly Leu Arg Pro Gly Ser Glu Tyr
1685 1690 1695

Thr Val Ser Val Val Ala Leu His Asp Asp Met Glu Ser Gln Pro
1700 1705 1710

Leu Ile Gly Thr Gln Ser Thr Ala Ile Pro Ala Pro Thr Asp Leu
1715 1720 1725

Lys Phe Thr Gln Val Thr Pro Thr Ser Leu Ser Ala Gln Trp Thr
1730 1735 1740

Pro Pro Asn Val Gln Leu Thr Gly Tyr Arg Val Arg Val Thr Pro
1745 1750 1755

Lys Glu Lys Thr Gly Pro Met Lys Glu Ile Asn Leu Ala Pro Asp
1760 1765 1770

Ser Ser Ser Val Val Val Ser Gly Leu Met Val Ala Thr Lys Tyr
1775 1780 1785

Glu Val Ser Val Tyr Ala Leu Lys Asp Thr Leu Thr Ser Arg Pro
1790 1795 1800

Ala Gln Gly Val Val Thr Thr Leu Glu Asn Val Ser Pro Pro Arg
1805 1810 1815

Arg Ala Arg Val Thr Asp Ala Thr Glu Thr Thr Ile Thr Ile Ser
1820 1825 1830

Trp Arg Thr Lys Thr Glu Thr Ile Thr Gly Phe Gln Val Asp Ala
1835 1840 1845

Val Pro Ala Asn Gly Gln Thr Pro Ile Gln Arg Thr Ile Lys Pro
1850 1855 1860

Asp Val Arg Ser Tyr Thr Ile Thr Gly Leu Gln Pro Gly Thr Asp
1865 1870 1875

Tyr Lys Ile Tyr Leu Tyr Thr Leu Asn Asp Asn Ala Arg Ser Ser
1880 1885 1890

Pro Val Val Ile Asp Ala Ser Thr Ala Ile Asp Ala Pro Ser Asn
1895 1900 1905

Leu Arg Phe Leu Ala Thr Thr Pro Asn Ser Leu Leu Val Ser Trp
1910 1915 1920

Gln Pro Pro Arg Ala Arg Ile Thr Gly Tyr Ile Ile Lys Tyr Glu
1925 1930 1935

Lys Pro Gly Ser Pro Pro Arg Glu Val Val Pro Arg Pro Arg Pro
1940 1945 1950

Gly Val Thr Glu Ala Thr Ile Thr Gly Leu Glu Pro Gly Thr Glu
1955 1960 1965

Tyr Thr Ile Tyr Val Ile Ala Leu Lys Asn Asn Gln Lys Ser Glu
1970 1975 1980

Pro Leu Ile Gly Arg Lys Lys Thr Asp Glu Leu Pro Gln Leu Val
1985 1990 1995

Thr Leu Pro His Pro Asn Leu His Gly Pro Glu Ile Leu Asp Val
2000 2005 2010

Pro Ser Thr Val Gln Lys Thr Pro Phe Val Thr His Pro Gly Tyr
2015 2020 2025

Asp Thr Gly Asn Gly Ile Gln Leu Pro Gly Thr Ser Gly Gln Gln
2030 2035 2040

Pro Ser Val Gly Gln Gln Met Ile Phe Glu Glu His Gly Phe Arg
2045 2050 2055

Arg Thr Thr Pro Pro Thr Thr Ala Thr Pro Ile Arg His Arg Pro

2060	2065	2070
Arg Pro Tyr Pro Pro Asn Val 2075	Gly Glu Glu Ile 2080	Gln Ile Gly His 2085
Ile Pro Arg Glu Asp Val 2090	Asp Tyr His Leu Tyr 2095	Pro His Gly Pro 2100
Gly Leu Asn Pro Asn Ala 2105	Ser Thr Gly Gln Glu 2110	Ala Leu Ser Gln 2115
Thr Thr Ile Ser Trp Ala 2120	Pro Phe Gln Asp Thr 2125	Ser Glu Tyr Ile 2130
Ile Ser Cys His Pro Val 2135	Gly Thr Asp Glu Glu 2140	Pro Leu Gln Phe 2145
Arg Val Pro Gly Thr Ser 2150	Thr Ser Ala Thr Leu 2155	Thr Gly Leu Thr 2160
Arg Gly Ala Thr Tyr Asn 2165	Val Ile Val Glu Ala 2170	Leu Lys Asp Gln 2175
Gln Arg His Lys Val Arg 2180	Glu Glu Val Val Thr 2185	Val Gly Asn Ser 2190
Val Asn Glu Gly Leu Asn 2195	Gln Pro Thr Asp Asp 2200	Ser Cys Phe Asp 2205
Pro Tyr Thr Val Ser His 2210	Tyr Ala Val Gly Asp 2215	Glu Trp Glu Arg 2220
Met Ser Glu Ser Gly Phe 2225	Lys Leu Leu Cys Gln 2230	Cys Leu Gly Phe 2235
Gly Ser Gly His Phe Arg 2240	Cys Asp Ser Ser Arg 2245	Trp Cys His Asp 2250
Asn Gly Val Asn Tyr Lys 2255	Ile Gly Glu Lys Trp 2260	Asp Arg Gln Gly 2265
Glu Asn Gly Gln Met Met 2270	Ser Cys Thr Cys Leu 2275	Gly Asn Gly Lys 2280

Gly Glu Phe Lys Cys Asp Pro His Glu Ala Thr Cys Tyr Asp Asp
2285 2290 2295

Gly Lys Thr Tyr His Val Gly Glu Gln Trp Gln Lys Glu Tyr Leu
2300 2305 2310

Gly Ala Ile Cys Ser Cys Thr Cys Phe Gly Gly Gln Arg Gly Trp
2315 2320 2325

Arg Cys Asp Asn Cys Arg Arg Pro Gly Gly Glu Pro Ser Pro Glu
2330 2335 2340

Gly Thr Thr Gly Gln Ser Tyr Asn Gln Tyr Ser Gln Arg Tyr His
2345 2350 2355

Gln Arg Thr Asn Thr Asn Val Asn Cys Pro Ile Glu Cys Phe Met
2360 2365 2370

Pro Leu Asp Val Gln Ala Asp Arg Glu Asp Ser Arg Glu
2375 2380 2385

<210> 272
<211> 2355
<212> PRT
<213> homo sapiens

<400> 272

Met Leu Arg Gly Pro Gly Pro Gly Leu Leu Leu Leu Ala Val Gln Cys
1 5 10 15

Leu Gly Thr Ala Val Pro Ser Thr Gly Ala Ser Lys Ser Lys Arg Gln
20 25 30

Ala Gln Gln Met Val Gln Pro Gln Ser Pro Val Ala Val Ser Gln Ser
35 40 45

Lys Pro Gly Cys Tyr Asp Asn Gly Lys His Tyr Gln Ile Asn Gln Gln
50 55 60

Trp Glu Arg Thr Tyr Leu Gly Asn Ala Leu Val Cys Thr Cys Tyr Gly
65 70 75 80

Gly Ser Arg Gly Phe Asn Cys Glu Ser Lys Pro Glu Ala Glu Glu Thr
85 90 95

Cys Phe Asp Lys Tyr Thr Gly Asn Thr Tyr Arg Val Gly Asp Thr Tyr
100 105 110

Glu Arg Pro Lys Asp Ser Met Ile Trp Asp Cys Thr Cys Ile Gly Ala
115 120 125

Gly Arg Gly Arg Ile Ser Cys Thr Ile Ala Asn Arg Cys His Glu Gly
130 135 140

Gly Gln Ser Tyr Lys Ile Gly Asp Thr Trp Arg Arg Pro His Glu Thr
145 150 155 160

Gly Gly Tyr Met Leu Glu Cys Val Cys Leu Gly Asn Gly Lys Gly Glu
165 170 175

Trp Thr Cys Lys Pro Ile Ala Glu Lys Cys Phe Asp His Ala Ala Gly
180 185 190

Thr Ser Tyr Val Val Gly Glu Thr Trp Glu Lys Pro Tyr Gln Gly Trp
195 200 205

Met Met Val Asp Cys Thr Cys Leu Gly Glu Gly Ser Gly Arg Ile Thr
210 215 220

Cys Thr Ser Arg Asn Arg Cys Asn Asp Gln Asp Thr Arg Thr Ser Tyr
225 230 235 240

Arg Ile Gly Asp Thr Trp Ser Lys Lys Asp Asn Arg Gly Asn Leu Leu
245 250 255

Gln Cys Ile Cys Thr Gly Asn Gly Arg Gly Glu Trp Lys Cys Glu Arg
260 265 270

His Thr Ser Val Gln Thr Thr Ser Ser Gly Ser Gly Pro Phe Thr Asp
275 280 285

Val Arg Ala Ala Val Tyr Gln Pro Gln Pro His Pro Gln Pro Pro Pro
290 295 300

Tyr Gly His Cys Val Thr Asp Ser Gly Val Val Tyr Ser Val Gly Met

305					310					315					320
Gln	Trp	Leu	Lys	Thr	Gln	Gly	Asn	Lys	Gln	Met	Leu	Cys	Thr	Cys	Leu
				325					330					335	
Gly	Asn	Gly	Val	Ser	Cys	Gln	Glu	Thr	Ala	Val	Thr	Gln	Thr	Tyr	Gly
			340					345					350		
Gly	Asn	Ser	Asn	Gly	Glu	Pro	Cys	Val	Leu	Pro	Phe	Thr	Tyr	Asn	Gly
		355					360					365			
Arg	Thr	Phe	Tyr	Ser	Cys	Thr	Thr	Glu	Gly	Arg	Gln	Asp	Gly	His	Leu
	370					375					380				
Trp	Cys	Ser	Thr	Thr	Ser	Asn	Tyr	Glu	Gln	Asp	Gln	Lys	Tyr	Ser	Phe
385					390					395					400
Cys	Thr	Asp	His	Thr	Val	Leu	Val	Gln	Thr	Arg	Gly	Gly	Asn	Ser	Asn
			405					410					415		
Gly	Ala	Leu	Cys	His	Phe	Pro	Phe	Leu	Tyr	Asn	Asn	His	Asn	Tyr	Thr
		420						425				430			
Asp	Cys	Thr	Ser	Glu	Gly	Arg	Arg	Asp	Asn	Met	Lys	Trp	Cys	Gly	Thr
		435					440					445			
Thr	Gln	Asn	Tyr	Asp	Ala	Asp	Gln	Lys	Phe	Gly	Phe	Cys	Pro	Met	Ala
	450					455					460				
Ala	His	Glu	Glu	Ile	Cys	Thr	Thr	Asn	Glu	Gly	Val	Met	Tyr	Arg	Ile
465					470					475					480
Gly	Asp	Gln	Trp	Asp	Lys	Gln	His	Asp	Met	Gly	His	Met	Met	Arg	Cys
				485					490					495	
Thr	Cys	Val	Gly	Asn	Gly	Arg	Gly	Glu	Trp	Thr	Cys	Ile	Ala	Tyr	Ser
			500					505					510		
Gln	Leu	Arg	Asp	Gln	Cys	Ile	Val	Asp	Asp	Ile	Thr	Tyr	Asn	Val	Asn
		515					520					525			
Asp	Thr	Phe	His	Lys	Arg	His	Glu	Glu	Gly	His	Met	Leu	Asn	Cys	Thr
	530					535					540				

Cys Phe Gly Gln Gly Arg Gly Arg Trp Lys Cys Asp Pro Val Asp Gln
545 550 555 560

Cys Gln Asp Ser Glu Thr Gly Thr Phe Tyr Gln Ile Gly Asp Ser Trp
565 570 575

Glu Lys Tyr Val His Gly Val Arg Tyr Gln Cys Tyr Cys Tyr Gly Arg
580 585 590

Gly Ile Gly Glu Trp His Cys Gln Pro Leu Gln Thr Tyr Pro Ser Ser
595 600 605

Ser Gly Pro Val Glu Val Phe Ile Thr Glu Thr Pro Ser Gln Pro Asn
610 615 620

Ser His Pro Ile Gln Trp Asn Ala Pro Gln Pro Ser His Ile Ser Lys
625 630 635 640

Tyr Ile Leu Arg Trp Arg Pro Lys Asn Ser Val Gly Arg Trp Lys Glu
645 650 655

Ala Thr Ile Pro Gly His Leu Asn Ser Tyr Thr Ile Lys Gly Leu Lys
660 665 670

Pro Gly Val Val Tyr Glu Gly Gln Leu Ile Ser Ile Gln Gln Tyr Gly
675 680 685

His Gln Glu Val Thr Arg Phe Asp Phe Thr Thr Thr Ser Thr Ser Thr
690 695 700

Pro Val Thr Ser Asn Thr Val Thr Gly Glu Thr Thr Pro Phe Ser Pro
705 710 715 720

Leu Val Ala Thr Ser Glu Ser Val Thr Glu Ile Thr Ala Ser Ser Phe
725 730 735

Val Val Ser Trp Val Ser Ala Ser Asp Thr Val Ser Gly Phe Arg Val
740 745 750

Glu Tyr Glu Leu Ser Glu Glu Gly Asp Glu Pro Gln Tyr Leu Asp Leu
755 760 765

Pro Ser Thr Ala Thr Ser Val Asn Ile Pro Asp Leu Leu Pro Gly Arg
770 775 780

Lys Tyr Ile Val Asn Val Tyr Gln Ile Ser Glu Asp Gly Glu Gln Ser
785 790 795 800

Leu Ile Leu Ser Thr Ser Gln Thr Thr Ala Pro Asp Ala Pro Pro Asp
805 810 815

Thr Thr Val Asp Gln Val Asp Asp Thr Ser Ile Val Val Arg Trp Ser
820 825 830

Arg Pro Gln Ala Pro Ile Thr Gly Tyr Arg Ile Val Tyr Ser Pro Ser
835 840 845

Val Glu Gly Ser Ser Thr Glu Leu Asn Leu Pro Glu Thr Ala Asn Ser
850 855 860

Val Thr Leu Ser Asp Leu Gln Pro Gly Val Gln Tyr Asn Ile Thr Ile
865 870 875 880

Tyr Ala Val Glu Glu Asn Gln Glu Ser Thr Pro Val Val Ile Gln Gln
885 890 895

Glu Thr Thr Gly Thr Pro Arg Ser Asp Thr Val Pro Ser Pro Arg Asp
900 905 910

Leu Gln Phe Val Glu Val Thr Asp Val Lys Val Thr Ile Met Trp Thr
915 920 925

Pro Pro Glu Ser Ala Val Thr Gly Tyr Arg Val Asp Val Ile Pro Val
930 935 940

Asn Leu Pro Gly Glu His Gly Gln Arg Leu Pro Ile Ser Arg Asn Thr
945 950 955 960

Phe Ala Glu Val Thr Gly Leu Ser Pro Gly Val Thr Tyr Tyr Phe Lys
965 970 975

Val Phe Ala Val Ser His Gly Arg Glu Ser Lys Pro Leu Thr Ala Gln
980 985 990

Gln Thr Thr Lys Leu Asp Ala Pro Thr Asn Leu Gln Phe Val Asn Glu
995 1000 1005

Thr Asp Ser Thr Val Leu Val Arg Trp Thr Pro Pro Arg Ala Gln
1010 1015 1020

Ile Thr Gly Tyr Arg Leu Thr Val Gly Leu Thr Arg Arg Gly Gln
1025 1030 1035

Pro Arg Gln Tyr Asn Val Gly Pro Ser Val Ser Lys Tyr Pro Leu
1040 1045 1050

Arg Asn Leu Gln Pro Ala Ser Glu Tyr Thr Val Ser Leu Val Ala
1055 1060 1065

Ile Lys Gly Asn Gln Glu Ser Pro Lys Ala Thr Gly Val Phe Thr
1070 1075 1080

Thr Leu Gln Pro Gly Ser Ser Ile Pro Pro Tyr Asn Thr Glu Val
1085 1090 1095

Thr Glu Thr Thr Ile Val Ile Thr Trp Thr Pro Ala Pro Arg Ile
1100 1105 1110

Gly Phe Lys Leu Gly Val Arg Pro Ser Gln Gly Gly Glu Ala Pro
1115 1120 1125

Arg Glu Val Thr Ser Asp Ser Gly Ser Ile Val Val Ser Gly Leu
1130 1135 1140

Thr Pro Gly Val Glu Tyr Val Tyr Thr Ile Gln Val Leu Arg Asp
1145 1150 1155

Gly Gln Glu Arg Asp Ala Pro Ile Val Asn Lys Val Val Thr Pro
1160 1165 1170

Leu Ser Pro Pro Thr Asn Leu His Leu Glu Ala Asn Pro Asp Thr
1175 1180 1185

Gly Val Leu Thr Val Ser Trp Glu Arg Ser Thr Thr Pro Asp Ile
1190 1195 1200

Thr Gly Tyr Arg Ile Thr Thr Thr Pro Thr Asn Gly Gln Gln Gly

1205		1210		1215
Asn Ser Leu Glu Glu Val Val His Ala Asp Gln Ser Ser Cys Thr				
1220		1225		1230
Phe Asp Asn Leu Ser Pro Gly Leu Glu Tyr Asn Val Ser Val Tyr				
1235		1240		1245
Thr Val Lys Asp Asp Lys Glu Ser Val Pro Ile Ser Asp Thr Ile				
1250		1255		1260
Ile Pro Ala Val Pro Pro Pro Thr Asp Leu Arg Phe Thr Asn Ile				
1265		1270		1275
Gly Pro Asp Thr Met Arg Val Thr Trp Ala Pro Pro Pro Ser Ile				
1280		1285		1290
Asp Leu Thr Asn Phe Leu Val Arg Tyr Ser Pro Val Lys Asn Glu				
1295		1300		1305
Glu Asp Val Ala Glu Leu Ser Ile Ser Pro Ser Asp Asn Ala Val				
1310		1315		1320
Val Leu Thr Asn Leu Leu Pro Gly Thr Glu Tyr Val Val Ser Val				
1325		1330		1335
Ser Ser Val Tyr Glu Gln His Glu Ser Thr Pro Leu Arg Gly Arg				
1340		1345		1350
Gln Lys Thr Gly Leu Asp Ser Pro Thr Gly Ile Asp Phe Ser Asp				
1355		1360		1365
Ile Thr Ala Asn Ser Phe Thr Val His Trp Ile Ala Pro Arg Ala				
1370		1375		1380
Thr Ile Thr Gly Tyr Arg Ile Arg His His Pro Glu His Phe Ser				
1385		1390		1395
Gly Arg Pro Arg Glu Asp Arg Val Pro His Ser Arg Asn Ser Ile				
1400		1405		1410
Thr Leu Thr Asn Leu Thr Pro Gly Thr Glu Tyr Val Val Ser Ile				
1415		1420		1425

Val Ala Leu Asn Gly Arg Glu Glu Ser Pro Leu Leu Ile Gly Gln
1430 1435 1440

Gln Ser Thr Val Ser Asp Val Pro Arg Asp Leu Glu Val Val Ala
1445 1450 1455

Ala Thr Pro Thr Ser Leu Leu Ile Ser Trp Asp Ala Pro Ala Val
1460 1465 1470

Thr Val Arg Tyr Tyr Arg Ile Thr Tyr Gly Glu Thr Gly Gly Asn
1475 1480 1485

Ser Pro Val Gln Glu Phe Thr Val Pro Gly Ser Lys Ser Thr Ala
1490 1495 1500

Thr Ile Ser Gly Leu Lys Pro Gly Val Asp Tyr Thr Ile Thr Val
1505 1510 1515

Tyr Ala Val Thr Gly Arg Gly Asp Ser Pro Ala Ser Ser Lys Pro
1520 1525 1530

Ile Ser Ile Asn Tyr Arg Thr Glu Ile Asp Lys Pro Ser Gln Met
1535 1540 1545

Gln Val Thr Asp Val Gln Asp Asn Ser Ile Ser Val Lys Trp Leu
1550 1555 1560

Pro Ser Ser Ser Pro Val Thr Gly Tyr Arg Val Thr Thr Thr Pro
1565 1570 1575

Lys Asn Gly Pro Gly Pro Thr Lys Thr Lys Thr Ala Gly Pro Asp
1580 1585 1590

Gln Thr Glu Met Thr Ile Glu Gly Leu Gln Pro Thr Val Glu Tyr
1595 1600 1605

Val Val Ser Val Tyr Ala Gln Asn Pro Ser Gly Glu Ser Gln Pro
1610 1615 1620

Leu Val Gln Thr Ala Val Thr Asn Ile Asp Arg Pro Lys Gly Leu
1625 1630 1635

Ala Phe Thr Asp Val Asp Val Asp Ser Ile Lys Ile Ala Trp Glu
1640 1645 1650

Ser Pro Gln Gly Gln Val Ser Arg Tyr Arg Val Thr Tyr Ser Ser
1655 1660 1665

Pro Glu Asp Gly Ile His Glu Leu Phe Pro Ala Pro Asp Gly Glu
1670 1675 1680

Glu Asp Thr Ala Glu Leu Gln Gly Leu Arg Pro Gly Ser Glu Tyr
1685 1690 1695

Thr Val Ser Val Val Ala Leu His Asp Asp Met Glu Ser Gln Pro
1700 1705 1710

Leu Ile Gly Thr Gln Ser Thr Ala Ile Pro Ala Pro Thr Asp Leu
1715 1720 1725

Lys Phe Thr Gln Val Thr Pro Thr Ser Leu Ser Ala Gln Trp Thr
1730 1735 1740

Pro Pro Asn Val Gln Leu Thr Gly Tyr Arg Val Arg Val Thr Pro
1745 1750 1755

Lys Glu Lys Thr Gly Pro Met Lys Glu Ile Asn Leu Ala Pro Asp
1760 1765 1770

Ser Ser Ser Val Val Val Ser Gly Leu Met Val Ala Thr Lys Tyr
1775 1780 1785

Glu Val Ser Val Tyr Ala Leu Lys Asp Thr Leu Thr Ser Arg Pro
1790 1795 1800

Ala Gln Gly Val Val Thr Thr Leu Glu Asn Val Ser Pro Pro Arg
1805 1810 1815

Arg Ala Arg Val Thr Asp Ala Thr Glu Thr Thr Ile Thr Ile Ser
1820 1825 1830

Trp Arg Thr Lys Thr Glu Thr Ile Thr Gly Phe Gln Val Asp Ala
1835 1840 1845

Val Pro Ala Asn Gly Gln Thr Pro Ile Gln Arg Thr Ile Lys Pro
1850 1855 1860

Asp Val Arg Ser Tyr Thr Ile Thr Gly Leu Gln Pro Gly Thr Asp
1865 1870 1875

Tyr Lys Ile Tyr Leu Tyr Thr Leu Asn Asp Asn Ala Arg Ser Ser
1880 1885 1890

Pro Val Val Ile Asp Ala Ser Thr Ala Ile Asp Ala Pro Ser Asn
1895 1900 1905

Leu Arg Phe Leu Ala Thr Thr Pro Asn Ser Leu Leu Val Ser Trp
1910 1915 1920

Gln Pro Pro Arg Ala Arg Ile Thr Gly Tyr Ile Ile Lys Tyr Glu
1925 1930 1935

Lys Pro Gly Ser Pro Pro Arg Glu Val Val Pro Arg Pro Arg Pro
1940 1945 1950

Gly Val Thr Glu Ala Thr Ile Thr Gly Leu Glu Pro Gly Thr Glu
1955 1960 1965

Tyr Thr Ile Tyr Val Ile Ala Leu Lys Asn Asn Gln Lys Ser Glu
1970 1975 1980

Pro Leu Ile Gly Arg Lys Lys Thr Asp Glu Leu Pro Gln Leu Val
1985 1990 1995

Thr Leu Pro His Pro Asn Leu His Gly Pro Glu Ile Leu Asp Val
2000 2005 2010

Pro Ser Thr Val Gln Lys Thr Pro Phe Val Thr His Pro Gly Tyr
2015 2020 2025

Asp Thr Gly Asn Gly Ile Gln Leu Pro Gly Thr Ser Gly Gln Gln
2030 2035 2040

Pro Ser Val Gly Gln Gln Met Ile Phe Glu Glu His Gly Phe Arg
2045 2050 2055

Arg Thr Thr Pro Pro Thr Thr Ala Thr Pro Ile Arg His Arg Pro

2060							2065							2070
Arg	Pro	Tyr	Pro	Pro	Asn	Val	Gly	Gln	Glu	Ala	Leu	Ser	Gln	Thr
2075						2080					2085			
Thr	Ile	Ser	Trp	Ala	Pro	Phe	Gln	Asp	Thr	Ser	Glu	Tyr	Ile	Ile
2090						2095					2100			
Ser	Cys	His	Pro	Val	Gly	Thr	Asp	Glu	Glu	Pro	Leu	Gln	Phe	Arg
2105						2110					2115			
Val	Pro	Gly	Thr	Ser	Thr	Ser	Ala	Thr	Leu	Thr	Gly	Leu	Thr	Arg
2120						2125					2130			
Gly	Ala	Thr	Tyr	Asn	Val	Ile	Val	Glu	Ala	Leu	Lys	Asp	Gln	Gln
2135						2140					2145			
Arg	His	Lys	Val	Arg	Glu	Glu	Val	Val	Thr	Val	Gly	Asn	Ser	Val
2150						2155					2160			
Asn	Glu	Gly	Leu	Asn	Gln	Pro	Thr	Asp	Asp	Ser	Cys	Phe	Asp	Pro
2165						2170					2175			
Tyr	Thr	Val	Ser	His	Tyr	Ala	Val	Gly	Asp	Glu	Trp	Glu	Arg	Met
2180						2185					2190			
Ser	Glu	Ser	Gly	Phe	Lys	Leu	Leu	Cys	Gln	Cys	Leu	Gly	Phe	Gly
2195						2200					2205			
Ser	Gly	His	Phe	Arg	Cys	Asp	Ser	Ser	Arg	Trp	Cys	His	Asp	Asn
2210						2215					2220			
Gly	Val	Asn	Tyr	Lys	Ile	Gly	Glu	Lys	Trp	Asp	Arg	Gln	Gly	Glu
2225						2230					2235			
Asn	Gly	Gln	Met	Met	Ser	Cys	Thr	Cys	Leu	Gly	Asn	Gly	Lys	Gly
2240						2245					2250			
Glu	Phe	Lys	Cys	Asp	Pro	His	Glu	Ala	Thr	Cys	Tyr	Asp	Asp	Gly
2255						2260					2265			
Lys	Thr	Tyr	His	Val	Gly	Glu	Gln	Trp	Gln	Lys	Glu	Tyr	Leu	Gly
2270						2275					2280			

Ala Ile Cys Ser Cys Thr Cys Phe Gly Gly Gln Arg Gly Trp Arg
2285 2290 2295

Cys Asp Asn Cys Arg Arg Pro Gly Gly Glu Pro Ser Pro Glu Gly
2300 2305 2310

Thr Thr Gly Gln Ser Tyr Asn Gln Tyr Ser Gln Arg Tyr His Gln
2315 2320 2325

Arg Thr Asn Thr Asn Val Asn Cys Pro Ile Glu Cys Phe Met Pro
2330 2335 2340

Leu Asp Val Gln Ala Asp Arg Glu Asp Ser Arg Glu
2345 2350 2355

<210> 273
<211> 439
<212> PRT
<213> homo sapiens

<400> 273

Met Pro Ala Ile Ala Val Leu Ala Ala Ala Ala Ala Trp Cys Phe
1 5 10 15

Leu Gln Val Glu Ser Arg His Leu Asp Ala Leu Ala Gly Gly Ala Gly
20 25 30

Pro Asn His Gly Asn Phe Leu Asp Asn Asp Gln Trp Leu Ser Thr Val
35 40 45

Ser Gln Tyr Asp Arg Asp Lys Tyr Trp Asn Arg Phe Arg Asp Asp Asp
50 55 60

Tyr Phe Arg Asn Trp Asn Pro Asn Lys Pro Phe Asp Gln Ala Leu Asp
65 70 75 80

Pro Ser Lys Asp Pro Cys Leu Lys Val Lys Cys Ser Pro His Lys Val
85 90 95

Cys Val Thr Gln Asp Tyr Gln Thr Ala Leu Cys Val Ser Arg Lys His
100 105 110

Leu Leu Pro Arg Gln Lys Lys Gly Asn Val Ala Gln Lys His Trp Val
115 120 125

Gly Pro Ser Asn Leu Val Lys Cys Lys Pro Cys Pro Val Ala Gln Ser
130 135 140

Ala Met Val Cys Gly Ser Asp Gly His Ser Tyr Thr Ser Lys Cys Lys
145 150 155 160

Leu Glu Phe His Ala Cys Ser Thr Gly Lys Ser Leu Ala Thr Leu Cys
165 170 175

Asp Gly Pro Cys Pro Cys Leu Pro Glu Pro Glu Pro Pro Lys His Lys
180 185 190

Ala Glu Arg Ser Ala Cys Thr Asp Lys Glu Leu Arg Asn Leu Ala Ser
195 200 205

Arg Leu Lys Asp Trp Phe Gly Ala Leu His Glu Asp Ala Asn Arg Val
210 215 220

Ile Lys Pro Thr Ser Ser Asn Thr Ala Gln Gly Arg Phe Asp Thr Ser
225 230 235 240

Ile Leu Pro Ile Cys Lys Asp Ser Leu Gly Trp Met Phe Asn Lys Leu
245 250 255

Asp Met Asn Tyr Asp Leu Leu Leu Asp Pro Ser Glu Ile Asn Ala Ile
260 265 270

Tyr Leu Asp Lys Tyr Glu Pro Cys Ile Lys Pro Leu Phe Asn Ser Cys
275 280 285

Asp Ser Phe Lys Asp Gly Lys Leu Ser Asn Asn Glu Trp Cys Tyr Cys
290 295 300

Phe Gln Lys Pro Gly Gly Leu Pro Cys Gln Asn Glu Met Asn Arg Ile
305 310 315 320

Gln Lys Leu Ser Lys Gly Lys Ser Leu Leu Gly Ala Phe Ile Pro Arg
325 330 335

Cys Asn Glu Glu Gly Tyr Tyr Lys Ala Thr Gln Cys His Gly Ser Thr

340 345 350
 Gly Gln Cys Trp Cys Val Asp Lys Tyr Gly Asn Glu Leu Ala Gly Ser
 355 360 365
 Arg Lys Gln Gly Ala Val Ser Cys Glu Glu Glu Gln Glu Thr Ser Gly
 370 375 380
 Asp Phe Gly Ser Gly Gly Ser Val Val Leu Leu Asp Asp Leu Glu Tyr
 385 390 395 400
 Glu Arg Glu Leu Gly Pro Lys Asp Lys Glu Gly Lys Leu Arg Val His
 405 410 415
 Thr Arg Ala Val Thr Glu Asp Asp Glu Asp Glu Asp Asp Asp Lys Glu
 420 425 430
 Asp Glu Val Gly Tyr Ile Trp
 435

<210> 274
 <211> 738
 <212> PRT
 <213> homo sapiens

<400> 274

Met Thr Ser Ser Gly Pro Gly Pro Arg Phe Leu Leu Leu Leu Pro Leu
 1 5 10 15
 Leu Leu Pro Pro Ala Ala Ser Ala Ser Asp Arg Pro Arg Gly Arg Asp
 20 25 30
 Pro Val Asn Pro Glu Lys Leu Leu Val Ile Thr Val Ala Thr Ala Glu
 35 40 45
 Thr Glu Gly Tyr Leu Arg Phe Leu Arg Ser Ala Glu Phe Phe Asn Tyr
 50 55 60
 Thr Val Arg Thr Leu Gly Leu Gly Glu Glu Trp Arg Gly Gly Asp Val
 65 70 75 80
 Ala Arg Thr Val Gly Gly Gly Gln Lys Val Arg Trp Leu Lys Lys Glu
 85 90 95

Met Glu Lys Tyr Ala Asp Arg Glu Asp Met Ile Ile Met Phe Val Asp
 100 105 110

Ser Tyr Asp Val Ile Leu Ala Gly Ser Pro Thr Glu Leu Leu Lys Lys
 115 120 125

Phe Val Gln Ser Gly Ser Arg Leu Leu Phe Ser Ala Glu Ser Phe Cys
 130 135 140

Trp Pro Glu Trp Gly Leu Ala Glu Gln Tyr Pro Glu Val Gly Thr Gly
 145 150 155 160

Lys Arg Phe Leu Asn Ser Gly Gly Phe Ile Gly Phe Ala Thr Thr Ile
 165 170 175

His Gln Ile Val Arg Gln Trp Lys Tyr Lys Asp Asp Asp Asp Asp Gln
 180 185 190

Leu Phe Tyr Thr Arg Leu Tyr Leu Asp Pro Gly Leu Arg Glu Lys Leu
 195 200 205

Ser Leu Asn Leu Asp His Lys Ser Arg Ile Phe Gln Asn Leu Asn Gly
 210 215 220

Ala Leu Asp Glu Val Val Leu Lys Phe Asp Arg Asn Arg Val Arg Ile
 225 230 235 240

Arg Asn Val Ala Tyr Asp Thr Leu Pro Ile Val Val His Gly Asn Gly
 245 250 255

Pro Thr Lys Leu Gln Leu Asn Tyr Leu Gly Asn Tyr Val Pro Asn Gly
 260 265 270

Trp Thr Pro Glu Gly Gly Cys Gly Phe Cys Asn Gln Asp Arg Arg Thr
 275 280 285

Leu Pro Gly Gly Gln Pro Pro Pro Arg Val Phe Leu Ala Val Phe Val
 290 295 300

Glu Gln Pro Thr Pro Phe Leu Pro Arg Phe Leu Gln Arg Leu Leu Leu
 305 310 315 320

Leu Asp Tyr Pro Pro Asp Arg Val Thr Leu Phe Leu His Asn Asn Glu
325 330 335

Val Phe His Glu Pro His Ile Ala Asp Ser Trp Pro Gln Leu Gln Asp
340 345 350

His Phe Ser Ala Val Lys Leu Val Gly Pro Glu Glu Ala Leu Ser Pro
355 360 365

Gly Glu Ala Arg Asp Met Ala Met Asp Leu Cys Arg Gln Asp Pro Glu
370 375 380

Cys Glu Phe Tyr Phe Ser Leu Asp Ala Asp Ala Val Leu Thr Asn Leu
385 390 395 400

Gln Thr Leu Arg Ile Leu Ile Glu Glu Asn Arg Lys Val Ile Ala Pro
405 410 415

Met Leu Ser Arg His Gly Lys Leu Trp Ser Asn Phe Trp Gly Ala Leu
420 425 430

Ser Pro Asp Glu Tyr Tyr Ala Arg Ser Glu Asp Tyr Val Glu Leu Val
435 440 445

Gln Arg Lys Arg Val Gly Val Trp Asn Val Pro Tyr Ile Ser Gln Ala
450 455 460

Tyr Val Ile Arg Gly Asp Thr Leu Arg Met Glu Leu Pro Gln Arg Asp
465 470 475 480

Val Phe Ser Gly Ser Asp Thr Asp Pro Asp Met Ala Phe Cys Lys Ser
485 490 495

Phe Arg Asp Lys Gly Ile Phe Leu His Leu Ser Asn Gln His Glu Phe
500 505 510

Gly Arg Leu Leu Ala Thr Ser Arg Tyr Asp Thr Glu His Leu His Pro
515 520 525

Asp Leu Trp Gln Ile Phe Asp Asn Pro Val Asp Trp Lys Glu Gln Tyr
530 535 540

Ile His Glu Asn Tyr Ser Arg Ala Leu Glu Gly Glu Gly Ile Val Glu

545		550		555		560									
Gln	Pro	Cys	Pro	Asp	Val	Tyr	Trp	Phe	Pro	Leu	Leu	Ser	Glu	Gln	Met
				565					570					575	
Cys	Asp	Glu	Leu	Val	Ala	Glu	Met	Glu	His	Tyr	Gly	Gln	Trp	Ser	Gly
			580					585					590		
Gly	Arg	His	Glu	Asp	Ser	Arg	Leu	Ala	Gly	Gly	Tyr	Glu	Asn	Val	Pro
		595					600					605			
Thr	Val	Asp	Ile	His	Met	Lys	Gln	Val	Gly	Tyr	Glu	Asp	Gln	Trp	Leu
	610					615					620				
Gln	Leu	Leu	Arg	Thr	Tyr	Val	Gly	Pro	Met	Thr	Glu	Ser	Leu	Phe	Pro
625					630					635					640
Gly	Tyr	His	Thr	Lys	Ala	Arg	Ala	Val	Met	Asn	Phe	Val	Val	Arg	Tyr
				645					650					655	
Arg	Pro	Asp	Glu	Gln	Pro	Ser	Leu	Arg	Pro	His	His	Asp	Ser	Ser	Thr
			660					665					670		
Phe	Thr	Leu	Asn	Val	Ala	Leu	Asn	His	Lys	Gly	Leu	Asp	Tyr	Glu	Gly
		675					680					685			
Gly	Gly	Cys	Arg	Phe	Leu	Arg	Tyr	Asp	Cys	Val	Ile	Ser	Ser	Pro	Arg
	690					695					700				
Lys	Gly	Trp	Ala	Leu	Leu	His	Pro	Gly	Arg	Leu	Thr	His	Tyr	His	Glu
705					710					715					720
Gly	Leu	Pro	Thr	Thr	Trp	Gly	Thr	Arg	Tyr	Ile	Met	Val	Ser	Phe	Val
				725					730					735	

Asp Pro

<210> 275
 <211> 788
 <212> PRT
 <213> homo sapiens
 <400> 275

Ala	Glu	Asp	Glu	Glu	Val	Gln	Gln	Arg	Leu	Arg	Ala	Pro	Ser	Leu	Leu	1	5	10	15
Leu	Leu	Leu	Leu	Trp	Leu	Leu	Ala	Val	Pro	Gly	Ala	Asn	Ala	Ala	Pro	20	25	30	
Arg	Ser	Ala	Leu	Tyr	Ser	Pro	Ser	Asp	Pro	Leu	Thr	Leu	Leu	Gln	Ala	35	40	45	
Asp	Thr	Val	Arg	Gly	Ala	Val	Leu	Gly	Ser	Arg	Ser	Ala	Trp	Ala	Val	50	55	60	
Glu	Phe	Phe	Ala	Ser	Trp	Cys	Gly	His	Cys	Ile	Ala	Phe	Ala	Pro	Thr	65	70	75	80
Trp	Lys	Ala	Leu	Ala	Glu	Asp	Val	Lys	Ala	Trp	Arg	Pro	Ala	Leu	Tyr	85	90	95	
Leu	Ala	Ala	Leu	Asp	Cys	Ala	Glu	Glu	Thr	Asn	Ser	Ala	Val	Cys	Arg	100	105	110	
Asp	Phe	Asn	Ile	Pro	Gly	Phe	Pro	Thr	Val	Arg	Phe	Phe	Lys	Ala	Phe	115	120	125	
Thr	Lys	Asn	Gly	Ser	Gly	Ala	Val	Phe	Pro	Val	Ala	Gly	Ala	Asp	Val	130	135	140	
Gln	Thr	Leu	Arg	Glu	Arg	Leu	Ile	Asp	Ala	Leu	Glu	Ser	His	His	Asp	145	150	155	160
Thr	Trp	Pro	Pro	Ala	Cys	Pro	Pro	Leu	Glu	Pro	Ala	Lys	Leu	Glu	Glu	165	170	175	
Ile	Asp	Gly	Phe	Phe	Ala	Arg	Asn	Asn	Glu	Glu	Tyr	Leu	Ala	Leu	Ile	180	185	190	
Phe	Glu	Lys	Gly	Gly	Ser	Tyr	Leu	Gly	Arg	Glu	Val	Ala	Leu	Asp	Leu	195	200	205	
Ser	Gln	His	Lys	Gly	Val	Ala	Val	Arg	Arg	Val	Leu	Asn	Thr	Glu	Ala	210	215	220	

Asn Val Val Arg Lys Phe Gly Val Thr Asp Phe Pro Ser Cys Tyr Leu
225 230 235 240

Leu Phe Arg Asn Gly Ser Val Ser Arg Val Pro Val Leu Met Glu Ser
245 250 255

Arg Ser Phe Tyr Thr Ala Tyr Leu Gln Arg Leu Ser Gly Leu Thr Arg
260 265 270

Glu Ala Ala Gln Thr Thr Val Ala Pro Thr Thr Ala Asn Lys Ile Ala
275 280 285

Pro Thr Val Trp Lys Leu Ala Asp Arg Ser Lys Ile Tyr Met Ala Asp
290 295 300

Leu Glu Ser Ala Leu His Tyr Ile Leu Arg Ile Glu Val Gly Arg Phe
305 310 315 320

Pro Val Leu Glu Gly Gln Arg Gly Gly Pro Glu Lys Val Cys Gly Ser
325 330 335

Ala Gly Gln Ala Ser Ala Cys Ser Ser Pro Gln Tyr Phe Pro Gly Arg
340 345 350

Pro Leu Val Gln Asn Phe Leu His Ser Val Asn Glu Trp Leu Lys Arg
355 360 365

Gln Lys Arg Asn Lys Ile Pro Tyr Ser Phe Phe Lys Thr Ala Leu Asp
370 375 380

Asp Arg Lys Glu Gly Ala Val Leu Ala Lys Lys Val Asn Trp Ile Gly
385 390 395 400

Cys Gln Gly Ser Glu Pro His Phe Arg Gly Phe Pro Cys Cys Gly Ser
405 410 415

Ser Ser Thr Ser Asp Cys Ala Gly Ser Ser Ala Lys Cys Arg Pro Leu
420 425 430

Thr Gly Ser Ser Gln Gly Gln Gly Gly Pro Pro Ser His Pro Arg Leu
435 440 445

Arg Ala Leu Leu Leu Arg Leu Pro Arg Leu Arg His Phe Glu Gln Met

450		455		460													
Ala	Ala	Ala	Ser	Met	His	Arg	Val	Gly	Ser	Pro	Asn	Ala	Ala	Val	Leu		
465					470					475					480		
Trp	Leu	Trp	Ser	Ser	His	Asn	Arg	Val	Asn	Ala	Arg	Leu	Ala	Gly	Pro		
				485					490					495			
Ala	Arg	Thr	Pro	Ser	Ser	Pro	Arg	Cys	Ser	Gly	His	Pro	Val	Asn	Phe		
			500					505					510				
Val	Leu	Pro	Ala	Thr	Met	Asn	Ala	Trp	Met	Cys	Pro	Cys	Gly	Thr	Trp		
		515					520					525					
Lys	Pro	Pro	Ser	Thr	Ser	Ser	Arg	Pro	Thr	Ser	Pro	Gln	Ala	Thr	Ser		
	530					535					540						
Ser	Trp	Thr	Ser	Leu	Gln	Leu	Gly	Gln	Leu	Pro	Gly	Gly	Met	Cys	Arg		
545					550					555					560		
Ala	Ala	Ala	Pro	Glu	Leu	Ala	Met	Gly	Ala	Leu	Glu	Leu	Glu	Ser	Arg		
				565					570					575			
Asn	Ser	Thr	Leu	Asp	Pro	Gly	Lys	Pro	Glu	Met	Met	Lys	Ser	Pro	Thr		
			580					585					590				
Asn	Thr	Thr	Pro	His	Val	Pro	Ala	Glu	Gly	Pro	Glu	Ala	Ser	Arg	Pro		
		595					600					605					
Pro	Lys	Leu	His	Pro	Gly	Leu	Arg	Ala	Ala	Pro	Gly	Gln	Glu	Pro	Pro		
	610					615					620						
Glu	His	Met	Ala	Glu	Leu	Gln	Arg	Asn	Glu	Gln	Glu	Gln	Pro	Leu	Gly		
625					630					635					640		
Gln	Trp	His	Leu	Ser	Glu	Thr	Gln	Gly	Leu	His	Cys	Trp	Leu	Ser	Pro		
				645					650					655			
Gly	Leu	Arg	Arg	Thr	Ala	Ser	Gly	Ala	Leu	Trp	Arg	Ser	Gly	Ala	Trp		
			660					665					670				
Ala	Ala	Ala	Pro	Ser	Ser	Trp	Ser	Thr	Ser	Leu	Pro	Ala	Gly	Gly	Pro		
		675					680					685					

Ser Trp Gly Arg Gly Gln Trp Leu Gln Val Leu Gly Gly Gly Phe Ser
690 695 700

Tyr Leu Asp Ile Ser Leu Cys Val Gly Leu Tyr Cys Pro Ser Trp Ala
705 710 715 720

Cys Trp Val His Leu Leu Pro Gly Gln Asp Lys Gly Arg Ala Met Leu
725 730 735

Ala Thr Leu Gln Pro Glu Pro Pro Gly Glu Glu Ala Gly Glu Gly Ala
740 745 750

Ala Ile Ser Arg His Leu Lys Pro Pro Asp Pro Ile Pro Ser Pro Pro
755 760 765

Thr Pro Cys Ser Leu Ser Gly Leu Glu Val Trp Glu Ile Gln Glu Asn
770 775 780

Glu Leu Leu Gln
785

<210> 276
<211> 163
<212> PRT
<213> homo sapiens

<400> 276

Met Ser Leu Leu Leu Leu Val Val Ser Ala Leu His Ile Leu Ile Leu
1 5 10 15

Ile Leu Leu Phe Val Ala Thr Leu Asp Lys Ser Trp Trp Thr Leu Pro
20 25 30

Gly Lys Glu Ser Leu Asn Leu Trp Tyr Asp Cys Thr Trp Asn Asn Asp
35 40 45

Thr Lys Thr Trp Ala Cys Ser Asn Val Ser Glu Asn Gly Trp Leu Lys
50 55 60

Ala Val Gln Val Leu Met Val Leu Ser Leu Ile Leu Cys Cys Leu Ser
65 70 75 80

Phe Ile Leu Phe Met Phe Gln Leu Tyr Thr Met Arg Arg Gly Gly Leu
85 90 95

Phe Tyr Ala Thr Gly Leu Cys Gln Leu Cys Thr Ser Val Ala Val Phe
100 105 110

Thr Gly Ala Leu Ile Tyr Ala Ile His Ala Glu Glu Ile Leu Glu Lys
115 120 125

His Pro Arg Gly Gly Ser Phe Gly Tyr Cys Phe Ala Leu Ala Trp Val
130 135 140

Ala Phe Pro Leu Ala Leu Val Ser Gly Ile Ile Tyr Ile His Leu Arg
145 150 155 160

Lys Arg Glu

<210> 277
<211> 507
<212> PRT
<213> homo sapiens

<400> 277

Met Ala Gly Ala Gly Pro Lys Arg Arg Ala Leu Ala Ala Pro Ala Ala
1 5 10 15

Glu Glu Lys Glu Glu Ala Arg Glu Lys Met Leu Ala Ala Lys Ser Ala
20 25 30

Asp Gly Ser Ala Pro Ala Gly Glu Gly Glu Gly Val Thr Leu Gln Arg
35 40 45

Asn Ile Thr Leu Leu Asn Gly Val Ala Ile Ile Val Gly Thr Ile Ile
50 55 60

Gly Ser Gly Ile Phe Val Thr Pro Thr Gly Val Leu Lys Glu Ala Gly
65 70 75 80

Ser Pro Gly Leu Ala Leu Val Val Trp Ala Ala Cys Gly Val Phe Ser
85 90 95

Ile Val Gly Ala Leu Cys Tyr Ala Glu Leu Gly Thr Thr Ile Ser Lys
100 105 110

Ser Gly Gly Asp Tyr Ala Tyr Met Leu Glu Val Tyr Gly Ser Leu Pro
115 120 125

Ala Phe Leu Lys Leu Trp Ile Glu Leu Leu Ile Ile Arg Pro Ser Ser
130 135 140

Gln Tyr Ile Val Ala Leu Val Phe Ala Thr Tyr Leu Leu Lys Pro Leu
145 150 155 160

Phe Pro Thr Cys Pro Val Pro Glu Glu Ala Ala Lys Leu Val Ala Cys
165 170 175

Leu Cys Val Leu Leu Leu Thr Ala Val Asn Cys Tyr Ser Val Lys Ala
180 185 190

Ala Thr Arg Val Gln Asp Ala Phe Ala Ala Ala Lys Leu Leu Ala Leu
195 200 205

Ala Leu Ile Ile Leu Leu Gly Phe Val Gln Ile Gly Lys Gly Asp Val
210 215 220

Ser Asn Leu Asp Pro Asn Phe Ser Phe Glu Gly Thr Lys Leu Asp Val
225 230 235 240

Gly Asn Ile Val Leu Ala Leu Tyr Ser Gly Leu Phe Ala Tyr Gly Gly
245 250 255

Trp Asn Tyr Leu Asn Phe Val Thr Glu Glu Met Ile Asn Pro Tyr Arg
260 265 270

Asn Leu Pro Leu Ala Ile Ile Ile Ser Leu Pro Ile Val Thr Leu Val
275 280 285

Tyr Val Leu Thr Asn Leu Ala Tyr Phe Thr Thr Leu Ser Thr Glu Gln
290 295 300

Met Leu Ser Ser Glu Ala Val Ala Val Asp Phe Gly Asn Tyr His Leu
305 310 315 320

Gly Val Met Ser Trp Ile Ile Pro Val Phe Val Gly Leu Ser Cys Phe
325 330 335

Gly Ser Val Asn Gly Ser Leu Phe Thr Ser Ser Arg Leu Phe Phe Val
340 345 350

Gly Ser Arg Glu Gly His Leu Pro Ser Ile Leu Ser Met Ile His Pro
355 360 365

Gln Leu Leu Thr Pro Val Pro Ser Leu Val Phe Thr Cys Val Met Thr
370 375 380

Leu Leu Tyr Ala Phe Ser Lys Asp Ile Phe Ser Val Ile Asn Phe Phe
385 390 395 400

Ser Phe Phe Asn Trp Leu Cys Val Ala Leu Ala Ile Ile Gly Met Ile
405 410 415

Trp Leu Arg His Arg Lys Pro Glu Leu Glu Arg Pro Ile Lys Val Asn
420 425 430

Leu Ala Leu Pro Val Phe Phe Ile Leu Ala Cys Leu Phe Leu Ile Ala
435 440 445

Val Ser Phe Trp Lys Thr Pro Val Glu Cys Gly Ile Gly Phe Thr Ile
450 455 460

Ile Leu Ser Gly Leu Pro Val Tyr Phe Phe Gly Val Trp Trp Lys Asn
465 470 475 480

Lys Pro Lys Trp Leu Leu Gln Gly Ile Phe Ser Thr Thr Val Leu Cys
485 490 495

Gln Lys Leu Met Gln Val Val Pro Gln Glu Thr
500 505

<210> 278
<211> 742
<212> PRT
<213> homo sapiens

<400> 278

Met Asp Lys Phe Trp Trp His Ala Ala Trp Gly Leu Cys Leu Val Pro
1 5 10 15

Leu Ser Leu Ala Gln Ile Asp Leu Asn Ile Thr Cys Arg Phe Ala Gly

20

25

30

Val Phe His Val Glu Lys Asn Gly Arg Tyr Ser Ile Ser Arg Thr Glu
 35 40 45

Ala Ala Asp Leu Cys Lys Ala Phe Asn Ser Thr Leu Pro Thr Met Ala
 50 55 60

Gln Met Glu Lys Ala Leu Ser Ile Gly Phe Glu Thr Cys Arg Tyr Gly
 65 70 75 80

Phe Ile Glu Gly His Val Val Ile Pro Arg Ile His Pro Asn Ser Ile
 85 90 95

Cys Ala Ala Asn Asn Thr Gly Val Tyr Ile Leu Thr Ser Asn Thr Ser
 100 105 110

Gln Tyr Asp Thr Tyr Cys Phe Asn Ala Ser Ala Pro Pro Glu Glu Asp
 115 120 125

Cys Thr Ser Val Thr Asp Leu Pro Asn Ala Phe Asp Gly Pro Ile Thr
 130 135 140

Ile Thr Ile Val Asn Arg Asp Gly Thr Arg Tyr Val Gln Lys Gly Glu
 145 150 155 160

Tyr Arg Thr Asn Pro Glu Asp Ile Tyr Pro Ser Asn Pro Thr Asp Asp
 165 170 175

Asp Val Ser Ser Gly Ser Ser Ser Glu Arg Ser Ser Thr Ser Gly Gly
 180 185 190

Tyr Ile Phe Tyr Thr Phe Ser Thr Val His Pro Ile Pro Asp Glu Asp
 195 200 205

Ser Pro Trp Ile Thr Asp Ser Thr Asp Arg Ile Pro Ala Thr Thr Leu
 210 215 220

Met Ser Thr Ser Ala Thr Ala Thr Glu Thr Ala Thr Lys Arg Gln Glu
 225 230 235 240

Thr Trp Asp Trp Phe Ser Trp Leu Phe Leu Pro Ser Glu Ser Lys Asn
 245 250 255

His Leu His Thr Thr Thr Gln Met Ala Gly Thr Ser Ser Asn Thr Ile
260 265 270

Ser Ala Gly Trp Glu Pro Asn Glu Glu Asn Glu Asp Glu Arg Asp Arg
275 280 285

His Leu Ser Phe Ser Gly Ser Gly Ile Asp Asp Asp Glu Asp Phe Ile
290 295 300

Ser Ser Thr Ile Ser Thr Thr Pro Arg Ala Phe Asp His Thr Lys Gln
305 310 315 320

Asn Gln Asp Trp Thr Gln Trp Asn Pro Ser His Ser Asn Pro Glu Val
325 330 335

Leu Leu Gln Thr Thr Thr Arg Met Thr Asp Val Asp Arg Asn Gly Thr
340 345 350

Thr Ala Tyr Glu Gly Asn Trp Asn Pro Glu Ala His Pro Pro Leu Ile
355 360 365

His His Glu His His Glu Glu Glu Glu Thr Pro His Ser Thr Ser Thr
370 375 380

Ile Gln Ala Thr Pro Ser Ser Thr Thr Glu Glu Thr Ala Thr Gln Lys
385 390 395 400

Glu Gln Trp Phe Gly Asn Arg Trp His Glu Gly Tyr Arg Gln Thr Pro
405 410 415

Lys Glu Asp Ser His Ser Thr Thr Gly Thr Ala Ala Ala Ser Ala His
420 425 430

Thr Ser His Pro Met Gln Gly Arg Thr Thr Pro Ser Pro Glu Asp Ser
435 440 445

Ser Trp Thr Asp Phe Phe Asn Pro Ile Ser His Pro Met Gly Arg Gly
450 455 460

His Gln Ala Gly Arg Arg Met Asp Met Asp Ser Ser His Ser Ile Thr
465 470 475 480

Leu Gln Pro Thr Ala Asn Pro Asn Thr Gly Leu Val Glu Asp Leu Asp
485 490 495

Arg Thr Gly Pro Leu Ser Met Thr Thr Gln Gln Ser Asn Ser Gln Ser
500 505 510

Phe Ser Thr Ser His Glu Gly Leu Glu Glu Asp Lys Asp His Pro Thr
515 520 525

Thr Ser Thr Leu Thr Ser Ser Asn Arg Asn Asp Val Thr Gly Gly Arg
530 535 540

Arg Asp Pro Asn His Ser Glu Gly Ser Thr Thr Leu Leu Glu Gly Tyr
545 550 555 560

Thr Ser His Tyr Pro His Thr Lys Glu Ser Arg Thr Phe Ile Pro Val
565 570 575

Thr Ser Ala Lys Thr Gly Ser Phe Gly Val Thr Ala Val Thr Val Gly
580 585 590

Asp Ser Asn Ser Asn Val Asn Arg Ser Leu Ser Gly Asp Gln Asp Thr
595 600 605

Phe His Pro Ser Gly Gly Ser His Thr Thr His Gly Ser Glu Ser Asp
610 615 620

Gly His Ser His Gly Ser Gln Glu Gly Gly Ala Asn Thr Thr Ser Gly
625 630 635 640

Pro Ile Arg Thr Pro Gln Ile Pro Glu Trp Leu Ile Ile Leu Ala Ser
645 650 655

Leu Leu Ala Leu Ala Leu Ile Leu Ala Val Cys Ile Ala Val Asn Ser
660 665 670

Arg Arg Arg Cys Gly Gln Lys Lys Lys Leu Val Ile Asn Ser Gly Asn
675 680 685

Gly Ala Val Glu Asp Arg Lys Pro Ser Gly Leu Asn Gly Glu Ala Ser
690 695 700

Lys Ser Gln Glu Met Val His Leu Val Asn Lys Glu Ser Ser Glu Thr
705 710 715 720

Pro Asp Gln Phe Met Thr Ala Asp Glu Thr Arg Asn Leu Gln Asn Val
725 730 735

Asp Met Lys Ile Gly Val
740

<210> 279
<211> 619
<212> PRT
<213> homo sapiens

<400> 279

Met Ser Val Ala His Met Ser Leu Gln Ala Ala Ala Ala Leu Leu Lys
1 5 10 15

Gly Arg Ser Val Leu Asp Ala Thr Gly Gln Arg Cys Arg Val Val Lys
20 25 30

Arg Ser Phe Ala Phe Pro Ser Phe Leu Glu Glu Asp Val Val Asp Gly
35 40 45

Ala Asp Thr Phe Asp Ser Ser Phe Phe Ser Lys Ala Ser Met Gly Ser
50 55 60

Met Pro Asp Asp Val Phe Glu Ser Pro Pro Leu Ser Ala Ser Tyr Phe
65 70 75 80

Arg Gly Ile Pro His Ser Ala Ser Pro Val Ser Pro Asp Gly Val Gln
85 90 95

Ile Pro Leu Lys Glu Tyr Gly Arg Ala Pro Val Pro Gly Pro Arg Arg
100 105 110

Gly Lys Arg Ile Ala Ser Lys Val Lys His Phe Ala Phe Asp Arg Lys
115 120 125

Lys Arg His Tyr Gly Leu Gly Val Val Gly Asn Trp Leu Asn Arg Ser
130 135 140

Tyr Arg Arg Ser Ile Ser Ser Thr Val Gln Arg Gln Leu Glu Ser Phe
145 150 155 160

Asp Ser His Arg Pro Tyr Phe Thr Tyr Trp Leu Thr Phe Val His Val
165 170 175

Ile Ile Thr Leu Leu Val Ile Cys Thr Tyr Gly Ile Ala Pro Val Gly
180 185 190

Phe Ala Gln His Val Thr Thr Gln Leu Val Leu Arg Asn Lys Gly Val
195 200 205

Tyr Glu Ser Val Lys Tyr Ile Gln Gln Glu Asn Phe Trp Val Gly Pro
210 215 220

Ser Ser Ile Asp Leu Ile His Leu Gly Ala Lys Phe Ser Pro Cys Ile
225 230 235 240

Arg Lys Asp Gly Gln Ile Glu Gln Leu Val Leu Arg Glu Arg Asp Leu
245 250 255

Glu Arg Asp Ser Gly Cys Cys Val Gln Asn Asp His Ser Gly Cys Ile
260 265 270

Gln Thr Gln Arg Lys Asp Cys Ser Glu Thr Leu Ala Thr Phe Val Lys
275 280 285

Trp Gln Asp Asp Thr Gly Pro Pro Met Asp Lys Ser Asp Leu Gly Gln
290 295 300

Lys Arg Thr Ser Gly Ala Val Cys His Gln Asp Pro Arg Thr Cys Glu
305 310 315 320

Glu Pro Ala Ser Ser Gly Ala His Ile Trp Pro Asp Asp Ile Thr Lys
325 330 335

Trp Pro Ile Cys Thr Glu Gln Ala Arg Ser Asn His Thr Gly Phe Leu
340 345 350

His Met Asp Cys Glu Ile Lys Gly Arg Pro Cys Cys Ile Gly Thr Lys
355 360 365

Gly Ser Cys Glu Ile Thr Thr Arg Glu Tyr Cys Glu Phe Met His Gly
370 375 380

Tyr Phe His Glu Glu Ala Thr Leu Cys Ser Gln Val His Cys Leu Asp
385 390 395 400

Lys Val Cys Gly Leu Leu Pro Phe Leu Asn Pro Glu Val Pro Asp Gln
405 410 415

Phe Tyr Arg Leu Trp Leu Ser Leu Phe Leu His Ala Gly Val Val His
420 425 430

Cys Leu Val Ser Val Val Phe Gln Met Thr Ile Leu Arg Asp Leu Glu
435 440 445

Lys Leu Ala Gly Trp His Arg Ile Ala Ile Ile Phe Ile Leu Ser Gly
450 455 460

Ile Thr Gly Asn Leu Ala Ser Ala Ile Phe Leu Pro Tyr Arg Ala Glu
465 470 475 480

Val Gly Pro Ala Gly Ser Gln Phe Gly Leu Leu Ala Cys Leu Phe Val
485 490 495

Glu Leu Phe Gln Ser Trp Pro Leu Leu Glu Arg Pro Trp Lys Ala Phe
500 505 510

Leu Asn Leu Ser Ala Ile Val Leu Phe Leu Phe Ile Cys Gly Leu Leu
515 520 525

Pro Trp Ile Asp Asn Ile Ala His Ile Phe Gly Phe Leu Ser Gly Leu
530 535 540

Leu Leu Ala Phe Ala Phe Leu Pro Tyr Ile Thr Phe Gly Thr Ser Asp
545 550 555 560

Lys Tyr Arg Lys Arg Ala Leu Ile Leu Val Ser Leu Leu Ala Phe Ala
565 570 575

Gly Leu Phe Ala Ala Leu Val Leu Trp Leu Tyr Ile Tyr Pro Ile Asn
580 585 590

Trp Pro Trp Ile Glu His Leu Thr Cys Phe Pro Phe Thr Ser Arg Phe
595 600 605

Cys Glu Lys Tyr Glu Leu Asp Gln Val Leu His
610 615

<210> 280
<211> 445
<212> PRT
<213> homo sapiens

<400> 280

Gly His Gln Gly Pro Pro Gly Pro Asp Glu Cys Glu Ile Leu Asp Ile
1 5 10 15

Ile Met Lys Met Cys Ser Cys Cys Glu Cys Lys Cys Gly Pro Ile Asp
20 25 30

Leu Leu Phe Val Leu Asp Ser Ser Glu Ser Ile Gly Leu Gln Asn Phe
35 40 45

Glu Ile Ala Lys Asp Phe Val Val Lys Val Ile Asp Arg Leu Ser Arg
50 55 60

Asp Glu Leu Val Lys Phe Glu Pro Gly Gln Ser Tyr Ala Gly Val Val
65 70 75 80

Gln Tyr Ser His Ser Gln Met Gln Glu His Val Ser Leu Arg Ser Pro
85 90 95

Ser Ile Arg Asn Val Gln Glu Leu Lys Glu Ala Ile Lys Ser Leu Gln
100 105 110

Trp Met Ala Gly Gly Thr Phe Thr Gly Glu Ala Leu Gln Tyr Thr Arg
115 120 125

Asp Gln Leu Leu Pro Pro Ser Pro Asn Asn Arg Ile Ala Leu Val Ile
130 135 140

Thr Asp Gly Arg Ser Asp Thr Gln Arg Asp Thr Thr Pro Leu Asn Val
145 150 155 160

Leu Cys Ser Pro Gly Ile Gln Val Val Ser Val Gly Ile Lys Asp Val
165 170 175

Phe Asp Phe Ile Pro Gly Ser Asp Gln Leu Asn Val Ile Ser Cys Gln
180 185 190

Gly Leu Ala Pro Ser Gln Gly Arg Pro Gly Leu Ser Leu Val Lys Glu
195 200 205

Asn Tyr Ala Glu Leu Leu Glu Asp Ala Phe Leu Lys Asn Val Thr Ala
210 215 220

Gln Ile Cys Ile Asp Lys Lys Cys Pro Asp Tyr Thr Cys Pro Ile Thr
225 230 235 240

Phe Ser Ser Pro Ala Asp Ile Thr Ile Leu Leu Asp Gly Ser Ala Ser
245 250 255

Val Gly Ser His Asn Phe Asp Thr Thr Lys Arg Phe Ala Lys Arg Leu
260 265 270

Ala Glu Arg Phe Leu Thr Ala Gly Arg Thr Asp Pro Ala His Asp Val
275 280 285

Arg Val Ala Val Val Gln Tyr Ser Gly Thr Gly Gln Gln Arg Pro Glu
290 295 300

Arg Ala Ser Leu Gln Phe Leu Gln Asn Tyr Thr Ala Leu Ala Ser Ala
305 310 315 320

Val Asp Ala Met Asp Phe Ile Asn Asp Ala Thr Asp Val Asn Asp Ala
325 330 335

Leu Gly Tyr Val Thr Arg Phe Tyr Arg Glu Ala Ser Ser Gly Ala Ala
340 345 350

Lys Lys Arg Leu Leu Leu Phe Ser Asp Gly Asn Ser Gln Gly Ala Thr
355 360 365

Pro Ala Ala Ile Glu Lys Ala Val Gln Glu Ala Gln Arg Ala Gly Ile
370 375 380

Glu Ile Phe Val Val Val Val Gly Arg Gln Val Asn Glu Pro His Ile
385 390 395 400

Arg Val Leu Val Thr Gly Lys Thr Ala Glu Tyr Asp Val Ala Tyr Gly
405 410 415

Glu Ser His Leu Phe Arg Val Pro Ser Tyr Gln Ala Leu Leu Arg Gly
420 425 430

Val Phe His Gln Thr Val Ser Arg Lys Val Ala Leu Gly
435 440 445

<210> 281
<211> 4576
<212> PRT
<213> homo sapiens

<400> 281

Met Ser Gly Glu Asp Ala Glu Val Arg Ala Val Ser Glu Asp Val Ser
1 5 10 15

Asn Gly Ser Ser Gly Ser Pro Ser Pro Gly Asp Thr Leu Pro Trp Asn
20 25 30

Leu Gly Lys Thr Gln Arg Ser Arg Arg Ser Gly Gly Gly Ala Gly Ser
35 40 45

Asn Gly Ser Val Leu Asp Pro Ala Glu Arg Ala Val Ile Arg Ile Ala
50 55 60

Asp Glu Arg Asp Arg Val Lys Lys Thr Phe Thr Lys Trp Val Asn Lys
65 70 75 80

His Leu Ile Lys Ala Gln Arg His Ile Ser Asp Leu Tyr Glu Asp Leu
85 90 95

Arg Asp Gly His Asn Leu Ile Ser Leu Leu Glu Val Leu Ser Gly Asp
100 105 110

Ser Leu Pro Arg Glu Lys Gly Arg Met Arg Phe His Lys Leu Gln Asn
115 120 125

Val Gln Ile Ala Leu Asp Tyr Leu Arg His Arg Gln Val Lys Leu Val
130 135 140

Asn Ile Arg Asn Asp Asp Ile Ala Asp Gly Asn Pro Lys Leu Thr Leu
145 150 155 160

Gly Leu Ile Trp Thr Ile Ile Leu His Phe Gln Ile Ser Asp Ile Gln

165

170

175

Val Ser Gly Gln Ser Glu Asp Met Thr Ala Lys Glu Lys Leu Leu Leu
 180 185 190

Trp Ser Gln Arg Met Val Glu Gly Tyr Gln Gly Leu Arg Cys Asp Asn
 195 200 205

Phe Thr Ser Ser Trp Arg Asp Gly Arg Leu Phe Asn Ala Ile Ile His
 210 215 220

Arg His Lys Pro Leu Leu Ile Asp Met Asn Lys Val Tyr Arg Gln Thr
 225 230 235 240

Asn Leu Glu Asn Leu Asp Gln Ala Phe Ser Val Ala Glu Arg Asp Leu
 245 250 255

Gly Val Thr Arg Leu Leu Asp Pro Glu Asp Val Asp Val Pro Gln Pro
 260 265 270

Asp Glu Lys Ser Ile Ile Thr Tyr Val Ser Ser Leu Tyr Asp Ala Met
 275 280 285

Pro Arg Val Pro Asp Val Gln Asp Gly Val Arg Ala Asn Glu Leu Gln
 290 295 300

Leu Arg Trp Gln Glu Tyr Arg Glu Leu Val Leu Leu Leu Leu Gln Trp
 305 310 315 320

Met Arg His His Thr Ala Ala Phe Glu Glu Arg Arg Phe Pro Ser Ser
 325 330 335

Phe Glu Glu Ile Glu Ile Leu Trp Ser Gln Phe Leu Lys Phe Lys Glu
 340 345 350

Met Glu Leu Pro Ala Lys Glu Ala Asp Lys Asn Arg Ser Lys Gly Ile
 355 360 365

Tyr Gln Ser Leu Glu Gly Ala Val Gln Ala Gly Gln Leu Lys Val Pro
 370 375 380

Pro Gly Tyr His Pro Leu Asp Val Glu Lys Glu Trp Gly Lys Leu His
 385 390 395 400

Val Ala Ile Leu Glu Arg Glu Lys Gln Leu Arg Ser Glu Phe Glu Arg
405 410 415

Leu Glu Cys Leu Gln Arg Ile Val Thr Lys Leu Gln Met Glu Ala Gly
420 425 430

Leu Cys Glu Glu Gln Leu Asn Gln Ala Asp Ala Leu Leu Gln Ser Asp
435 440 445

Val Arg Leu Leu Ala Ala Gly Lys Val Pro Gln Arg Ala Gly Glu Val
450 455 460

Glu Arg Asp Leu Asp Lys Ala Asp Ser Met Ile Arg Leu Leu Phe Asn
465 470 475 480

Asp Val Gln Thr Leu Lys Asp Gly Arg His Pro Gln Gly Glu Gln Met
485 490 495

Tyr Arg Arg Val Tyr Arg Leu His Glu Arg Leu Val Ala Ile Arg Thr
500 505 510

Glu Tyr Asn Leu Arg Leu Lys Ala Gly Val Ala Ala Pro Ala Thr Gln
515 520 525

Val Ala Gln Val Thr Leu Gln Ser Val Gln Arg Arg Pro Glu Leu Glu
530 535 540

Asp Ser Thr Leu Arg Tyr Leu Gln Asp Leu Leu Ala Trp Val Glu Glu
545 550 555 560

Asn Gln His Arg Val Asp Gly Ala Glu Trp Gly Val Asp Leu Pro Ser
565 570 575

Val Glu Ala Gln Leu Gly Ser His Arg Gly Leu His Gln Ser Ile Glu
580 585 590

Glu Phe Arg Ala Lys Ile Glu Arg Ala Arg Ser Asp Glu Gly Gln Leu
595 600 605

Ser Pro Ala Thr Arg Gly Ala Tyr Arg Asp Cys Leu Gly Arg Leu Asp
610 615 620

Leu Gln Tyr Ala Lys Leu Leu Asn Ser Ser Lys Ala Arg Leu Arg Ser
625 630 635 640

Leu Glu Ser Leu His Ser Phe Val Ala Ala Ala Thr Lys Glu Leu Met
645 650 655

Trp Leu Asn Glu Lys Glu Glu Glu Glu Val Gly Phe Asp Trp Ser Asp
660 665 670

Arg Asn Thr Asn Met Thr Ala Lys Lys Glu Ser Tyr Ser Ala Leu Met
675 680 685

Arg Glu Leu Glu Leu Lys Glu Lys Lys Ile Lys Glu Leu Gln Asn Ala
690 695 700

Gly Asp Arg Leu Leu Arg Glu Asp His Pro Ala Arg Pro Thr Val Glu
705 710 715 720

Ser Phe Gln Ala Ala Leu Gln Thr Gln Trp Ser Trp Met Leu Gln Leu
725 730 735

Cys Cys Cys Ile Glu Ala His Leu Lys Glu Asn Ala Ala Tyr Phe Gln
740 745 750

Phe Phe Ser Asp Val Arg Glu Ala Glu Gly Gln Leu Gln Lys Leu Gln
755 760 765

Glu Ala Leu Arg Arg Lys Tyr Ser Cys Asp Arg Ser Ala Thr Val Thr
770 775 780

Arg Leu Glu Asp Leu Leu Gln Asp Ala Gln Asp Glu Lys Glu Gln Leu
785 790 795 800

Asn Glu Tyr Lys Gly His Leu Ser Gly Leu Ala Lys Arg Ala Lys Ala
805 810 815

Val Val Gln Leu Lys Pro Arg His Pro Ala His Pro Met Arg Gly Arg
820 825 830

Leu Pro Leu Leu Ala Val Cys Asp Tyr Lys Gln Val Glu Val Thr Val
835 840 845

His Lys Gly Asp Glu Cys Gln Leu Val Gly Pro Ala Gln Pro Ser His
850 855 860

Trp Lys Val Leu Ser Ser Ser Gly Ser Glu Ala Ala Val Pro Ser Val
865 870 875 880

Cys Phe Leu Val Pro Pro Pro Asn Gln Glu Ala Gln Glu Ala Val Thr
885 890 895

Arg Leu Glu Ala Gln His Gln Ala Leu Val Thr Leu Trp His Gln Leu
900 905 910

His Val Asp Met Lys Ser Leu Leu Ala Trp Gln Ser Leu Arg Arg Asp
915 920 925

Val Gln Leu Ile Arg Ser Trp Ser Leu Ala Thr Phe Arg Thr Leu Lys
930 935 940

Pro Glu Glu Gln Arg Gln Ala Leu His Ser Leu Glu Leu His Tyr Gln
945 950 955 960

Ala Phe Leu Arg Asp Ser Gln Asp Ala Gly Gly Phe Gly Pro Glu Asp
965 970 975

Arg Leu Met Ala Glu Arg Glu Tyr Gly Ser Cys Ser His His Tyr Gln
980 985 990

Gln Leu Leu Gln Ser Leu Glu Gln Gly Ala Gln Glu Glu Ser Arg Cys
995 1000 1005

Gln Arg Cys Ile Ser Glu Leu Lys Asp Ile Arg Leu Gln Leu Glu
1010 1015 1020

Ala Cys Glu Thr Arg Thr Val His Arg Leu Arg Leu Pro Leu Asp
1025 1030 1035

Lys Glu Pro Ala Arg Glu Cys Ala Gln Arg Ile Ala Glu Gln Gln
1040 1045 1050

Ala Gly Ala Lys Ala Gln Ala Glu Val Glu Gly Leu Gly Lys Gly
1055 1060 1065

Val Ala Arg Leu Ser Ala Glu Ala Glu Lys Val Leu Ala Leu Pro

1070					1075					1080				
Glu	Pro	Ser	Pro	Ala	Ala	Pro	Thr	Leu	Arg	Ser	Glu	Leu	Glu	Leu
	1085					1090					1095			
Thr	Leu	Gly	Lys	Leu	Glu	Gln	Val	Arg	Ser	Leu	Ser	Ala	Ile	Tyr
	1100					1105					1110			
Leu	Glu	Lys	Leu	Lys	Thr	Ile	Ser	Leu	Val	Ile	Arg	Gly	Thr	Gln
	1115					1120					1125			
Gly	Ala	Glu	Glu	Val	Leu	Arg	Ala	His	Glu	Glu	Gln	Leu	Lys	Glu
	1130					1135					1140			
Ala	Gln	Ala	Val	Pro	Ala	Thr	Leu	Pro	Glu	Leu	Glu	Ala	Thr	Lys
	1145					1150					1155			
Ala	Ser	Leu	Lys	Lys	Leu	Arg	Ala	Gln	Ala	Glu	Ala	Gln	Gln	Pro
	1160					1165					1170			
Thr	Phe	Asp	Ala	Leu	Arg	Asp	Glu	Leu	Arg	Gly	Ala	Gln	Glu	Val
	1175					1180					1185			
Gly	Glu	Arg	Leu	Gln	Gln	Arg	His	Gly	Glu	Arg	Asp	Val	Glu	Val
	1190					1195					1200			
Glu	Arg	Trp	Arg	Glu	Arg	Val	Ala	Gln	Leu	Leu	Glu	Arg	Trp	Gln
	1205					1210					1215			
Ala	Val	Leu	Ala	Gln	Thr	Asp	Val	Arg	Gln	Arg	Glu	Leu	Glu	Gln
	1220					1225					1230			
Leu	Gly	Arg	Gln	Leu	Arg	Tyr	Tyr	Arg	Glu	Ser	Ala	Asp	Pro	Leu
	1235					1240					1245			
Gly	Ala	Trp	Leu	Gln	Asp	Ala	Arg	Arg	Arg	Gln	Glu	Gln	Ile	Gln
	1250					1255					1260			
Ala	Met	Pro	Leu	Ala	Asp	Ser	Gln	Ala	Val	Arg	Glu	Gln	Leu	Arg
	1265					1270					1275			
Gln	Glu	Gln	Ala	Leu	Leu	Glu	Glu	Ile	Glu	Arg	His	Gly	Glu	Lys
	1280					1285					1290			

Val Glu Glu Cys Gln Arg Phe Ala Lys Gln Tyr Ile Asn Ala Ile
1295 1300 1305

Lys Asp Tyr Glu Leu Gln Leu Val Thr Tyr Lys Ala Gln Leu Glu
1310 1315 1320

Pro Val Ala Ser Pro Ala Lys Lys Pro Lys Val Gln Ser Gly Ser
1325 1330 1335

Glu Ser Val Ile Gln Glu Tyr Val Asp Leu Arg Thr His Tyr Ser
1340 1345 1350

Glu Leu Thr Thr Leu Thr Ser Gln Tyr Ile Lys Phe Ile Ser Glu
1355 1360 1365

Thr Leu Arg Arg Met Glu Glu Glu Glu Arg Leu Ala Glu Gln Gln
1370 1375 1380

Arg Ala Glu Glu Arg Glu Arg Leu Ala Glu Val Glu Ala Ala Leu
1385 1390 1395

Glu Lys Gln Arg Gln Leu Ala Glu Ala His Ala Gln Ala Lys Ala
1400 1405 1410

Gln Ala Glu Arg Glu Ala Lys Glu Leu Gln Gln Arg Met Gln Glu
1415 1420 1425

Glu Val Val Arg Arg Glu Glu Ala Ala Val Asp Ala Gln Gln Gln
1430 1435 1440

Lys Arg Ser Ile Gln Glu Glu Leu Gln Gln Leu Arg Gln Ser Ser
1445 1450 1455

Glu Ala Glu Ile Gln Ala Lys Ala Arg Gln Ala Glu Ala Ala Glu
1460 1465 1470

Arg Ser Arg Leu Arg Ile Glu Glu Glu Ile Arg Val Val Arg Leu
1475 1480 1485

Gln Leu Glu Ala Thr Glu Arg Gln Arg Gly Gly Ala Glu Gly Glu
1490 1495 1500

Leu Gln Ala Leu Arg Ala Arg Ala Glu Glu Ala Glu Ala Gln Lys
1505 1510 1515

Arg Gln Ala Gln Glu Glu Ala Glu Arg Leu Arg Arg Gln Val Gln
1520 1525 1530

Asp Glu Ser Gln Arg Lys Arg Gln Ala Glu Val Glu Leu Ala Ser
1535 1540 1545

Arg Val Lys Ala Glu Ala Glu Ala Ala Arg Glu Lys Gln Arg Ala
1550 1555 1560

Leu Gln Ala Leu Glu Glu Leu Arg Leu Gln Ala Glu Glu Ala Glu
1565 1570 1575

Arg Arg Leu Arg Gln Ala Glu Val Glu Arg Ala Arg Gln Val Gln
1580 1585 1590

Val Ala Leu Glu Thr Ala Gln Arg Ser Ala Glu Ala Glu Leu Gln
1595 1600 1605

Ser Lys Arg Ala Ser Phe Ala Glu Lys Thr Ala Gln Leu Glu Arg
1610 1615 1620

Ser Leu Gln Glu Glu His Val Ala Val Ala Gln Leu Arg Glu Glu
1625 1630 1635

Ala Glu Arg Arg Ala Gln Gln Gln Ala Glu Ala Glu Arg Ala Arg
1640 1645 1650

Glu Glu Ala Glu Arg Glu Leu Glu Arg Trp Gln Leu Lys Ala Asn
1655 1660 1665

Glu Ala Leu Arg Leu Arg Leu Gln Ala Glu Glu Val Ala Gln Gln
1670 1675 1680

Lys Ser Leu Ala Gln Ala Glu Ala Glu Lys Gln Lys Glu Glu Ala
1685 1690 1695

Glu Arg Glu Ala Arg Arg Arg Gly Lys Ala Glu Glu Gln Ala Val
1700 1705 1710

Arg Gln Arg Glu Leu Ala Glu Gln Glu Leu Glu Lys Gln Arg Gln
1715 1720 1725

Leu Ala Glu Gly Thr Ala Gln Gln Arg Leu Ala Ala Glu Gln Glu
1730 1735 1740

Leu Ile Arg Leu Arg Ala Glu Thr Glu Gln Gly Glu Gln Gln Arg
1745 1750 1755

Gln Leu Leu Glu Glu Glu Leu Ala Arg Leu Gln Arg Glu Ala Ala
1760 1765 1770

Ala Ala Thr Gln Lys Arg Gln Glu Leu Glu Ala Glu Leu Ala Lys
1775 1780 1785

Val Arg Ala Glu Met Glu Val Leu Leu Ala Ser Lys Ala Arg Ala
1790 1795 1800

Glu Glu Glu Ser Arg Ser Thr Ser Glu Lys Ser Lys Gln Arg Leu
1805 1810 1815

Glu Ala Glu Ala Gly Arg Phe Arg Glu Leu Ala Glu Glu Ala Ala
1820 1825 1830

Arg Leu Arg Ala Leu Ala Glu Glu Ala Lys Arg Gln Arg Gln Leu
1835 1840 1845

Ala Glu Glu Asp Ala Ala Arg Gln Arg Ala Glu Ala Glu Arg Val
1850 1855 1860

Leu Ala Glu Lys Leu Ala Ala Ile Gly Glu Ala Thr Arg Leu Lys
1865 1870 1875

Thr Glu Ala Glu Ile Ala Leu Lys Glu Lys Glu Ala Glu Asn Glu
1880 1885 1890

Arg Leu Arg Arg Leu Ala Glu Asp Glu Ala Phe Gln Arg Arg Arg
1895 1900 1905

Leu Glu Glu Gln Ala Ala Gln His Lys Ala Asp Ile Glu Glu Arg
1910 1915 1920

Leu Ala Gln Leu Arg Lys Ala Ser Asp Ser Glu Leu Glu Arg Gln

1925	1930	1935
Lys Gly Leu Val Glu Asp Thr 1940	Leu Arg Gln Arg 1945	Arg Gln Val Glu 1950
Glu Glu Ile Leu Ala Leu 1955	Lys Ala Ser Phe Glu 1960	Lys Ala Ala Ala 1965
Gly Lys Ala Glu Leu Glu 1970	Leu Glu Leu Gly Arg 1975	Ile Arg Ser Asn 1980
Ala Glu Asp Thr Leu Arg 1985	Ser Lys Glu Gln Ala 1990	Glu Leu Glu Ala 1995
Ala Arg Gln Arg Gln Leu 2000	Ala Glu Glu Glu 2005	Arg Arg Arg Arg 2010
Glu Ala Glu Glu Arg Val 2015	Gln Lys Ser Leu Ala 2020	Ala Glu Glu Glu 2025
Ala Ala Arg Gln Arg Lys 2030	Ala Ala Leu Glu Glu 2035	Val Glu Arg Leu 2040
Lys Ala Lys Val Glu Glu 2045	Ala Arg Arg Leu Arg 2050	Glu Arg Ala Glu 2055
Gln Glu Ser Ala Arg Gln 2060	Leu Gln Leu Ala Gln 2065	Glu Ala Ala Gln 2070
Lys Arg Leu Gln Ala Glu 2075	Glu Lys Ala His Ala 2080	Phe Ala Val Gln 2085
Gln Lys Glu Gln Glu Leu 2090	Gln Gln Thr Leu Gln 2095	Gln Glu Gln Ser 2100
Val Leu Asp Gln Leu Arg 2105	Gly Glu Ala Glu Ala 2110	Ala Arg Arg Ala 2115
Ala Glu Glu Ala Glu Glu 2120	Ala Arg Val Gln Ala 2125	Glu Arg Glu Ala 2130
Ala Gln Ser Arg Arg Gln 2135	Val Glu Glu Ala Glu 2140	Arg Leu Lys Gln 2145

Ser Ala Glu Glu Gln Ala Gln Ala Arg Ala Gln Ala Gln Ala Ala
2150 2155 2160

Ala Glu Lys Leu Arg Lys Glu Ala Glu Gln Glu Ala Ala Arg Arg
2165 2170 2175

Ala Gln Ala Glu Gln Ala Ala Leu Arg Gln Lys Gln Ala Ala Asp
2180 2185 2190

Ala Glu Met Glu Lys His Lys Lys Phe Ala Glu Gln Thr Leu Arg
2195 2200 2205

Gln Lys Ala Gln Val Glu Gln Glu Leu Thr Thr Leu Arg Leu Gln
2210 2215 2220

Leu Glu Glu Thr Asp His Gln Lys Asn Leu Leu Asp Glu Glu Leu
2225 2230 2235

Gln Arg Leu Lys Ala Glu Ala Thr Glu Ala Ala Arg Gln Arg Ser
2240 2245 2250

Gln Val Glu Glu Glu Leu Phe Ser Val Arg Val Gln Met Glu Glu
2255 2260 2265

Leu Ser Lys Leu Lys Ala Arg Ile Glu Ala Glu Asn Arg Ala Leu
2270 2275 2280

Ile Leu Arg Asp Lys Asp Asn Thr Gln Arg Phe Leu Gln Glu Glu
2285 2290 2295

Ala Glu Lys Met Lys Gln Val Ala Glu Glu Ala Ala Arg Leu Ser
2300 2305 2310

Val Ala Ala Gln Glu Ala Ala Arg Leu Arg Gln Leu Ala Glu Glu
2315 2320 2325

Asp Leu Ala Gln Gln Arg Ala Leu Ala Glu Lys Met Leu Lys Glu
2330 2335 2340

Lys Met Gln Ala Val Gln Glu Ala Thr Arg Leu Lys Ala Glu Ala
2345 2350 2355

Glu	Leu	Leu	Gln	Gln	Gln	Lys	Glu	Leu	Ala	Gln	Glu	Gln	Ala	Arg
2360						2365					2370			
Arg	Leu	Gln	Glu	Asp	Lys	Glu	Gln	Met	Ala	Gln	Gln	Leu	Ala	Glu
2375						2380					2385			
Glu	Thr	Gln	Gly	Phe	Gln	Arg	Thr	Leu	Glu	Ala	Glu	Arg	Gln	Arg
2390						2395					2400			
Gln	Leu	Glu	Met	Ser	Ala	Glu	Ala	Glu	Arg	Leu	Lys	Leu	Arg	Val
2405						2410					2415			
Ala	Glu	Met	Ser	Arg	Ala	Gln	Ala	Arg	Ala	Glu	Glu	Asp	Ala	Gln
2420						2425					2430			
Arg	Phe	Arg	Lys	Gln	Ala	Glu	Glu	Ile	Gly	Glu	Lys	Leu	His	Arg
2435						2440					2445			
Thr	Glu	Leu	Ala	Thr	Gln	Glu	Lys	Val	Thr	Leu	Val	Gln	Thr	Leu
2450						2455					2460			
Glu	Ile	Gln	Arg	Gln	Gln	Ser	Asp	His	Asp	Ala	Glu	Arg	Leu	Arg
2465						2470					2475			
Glu	Ala	Ile	Ala	Glu	Leu	Glu	Arg	Glu	Lys	Glu	Lys	Leu	Gln	Gln
2480						2485					2490			
Glu	Ala	Lys	Leu	Leu	Gln	Leu	Lys	Ser	Glu	Glu	Met	Gln	Thr	Val
2495						2500					2505			
Gln	Gln	Glu	Gln	Leu	Leu	Gln	Glu	Thr	Gln	Ala	Leu	Gln	Gln	Ser
2510						2515					2520			
Phe	Leu	Ser	Glu	Lys	Asp	Ser	Leu	Leu	Gln	Arg	Glu	Arg	Phe	Ile
2525						2530					2535			
Glu	Gln	Glu	Lys	Ala	Lys	Leu	Glu	Gln	Leu	Phe	Gln	Asp	Glu	Val
2540						2545					2550			
Ala	Lys	Ala	Gln	Gln	Leu	Arg	Glu	Glu	Gln	Gln	Arg	Gln	Gln	Gln
2555						2560					2565			

Gln Met Glu Gln Glu Arg Gln Arg Leu Val Ala Ser Met Glu Glu
2570 2575 2580

Ala Arg Arg Arg Gln His Glu Ala Glu Glu Gly Val Arg Arg Lys
2585 2590 2595

Gln Glu Glu Leu Gln Gln Leu Glu Gln Gln Arg Arg Gln Gln Glu
2600 2605 2610

Glu Leu Leu Ala Glu Glu Asn Gln Arg Leu Arg Glu Gln Leu Gln
2615 2620 2625

Leu Leu Glu Glu Gln His Arg Ala Ala Leu Ala His Ser Glu Glu
2630 2635 2640

Val Thr Ala Ser Gln Val Ala Ala Thr Lys Thr Leu Pro Asn Gly
2645 2650 2655

Arg Asp Ala Leu Asp Gly Pro Ala Ala Glu Ala Glu Pro Glu His
2660 2665 2670

Ser Phe Asp Gly Leu Arg Arg Lys Val Ser Ala Gln Arg Leu Gln
2675 2680 2685

Glu Ala Gly Ile Leu Ser Ala Glu Glu Leu Gln Arg Leu Ala Gln
2690 2695 2700

Gly His Thr Thr Val Asp Glu Leu Ala Arg Arg Glu Asp Val Arg
2705 2710 2715

His Tyr Leu Gln Gly Arg Ser Ser Ile Ala Gly Leu Leu Leu Lys
2720 2725 2730

Ala Thr Asn Glu Lys Leu Ser Val Tyr Ala Ala Leu Gln Arg Gln
2735 2740 2745

Leu Leu Ser Pro Gly Thr Ala Leu Ile Leu Leu Glu Ala Gln Ala
2750 2755 2760

Ala Ser Gly Phe Leu Leu Asp Pro Val Arg Asn Arg Arg Leu Thr
2765 2770 2775

Val Asn Glu Ala Val Lys Glu Gly Val Val Gly Pro Glu Leu His

2780													
His	Lys	Leu	Leu	Ser	Ala	Glu	Arg	Ala	Val	Thr	Gly	Tyr	Lys
2795						2800					2805		Asp
Pro	Tyr	Thr	Gly	Gln	Gln	Ile	Ser	Leu	Phe	Gln	Ala	Met	Gln
2810						2815					2820		Lys
Gly	Leu	Ile	Val	Arg	Glu	His	Gly	Ile	Arg	Leu	Leu	Glu	Ala
2825						2830					2835		Gln
Ile	Ala	Thr	Gly	Gly	Val	Ile	Asp	Pro	Val	His	Ser	His	Arg
2840						2845					2850		Val
Pro	Val	Asp	Val	Ala	Tyr	Arg	Arg	Gly	Tyr	Phe	Asp	Glu	Glu
2855						2860					2865		Met
Asn	Arg	Val	Leu	Ala	Asp	Pro	Ser	Asp	Asp	Thr	Lys	Gly	Phe
2870						2875					2880		Phe
Asp	Pro	Asn	Thr	His	Glu	Asn	Leu	Thr	Tyr	Leu	Gln	Leu	Leu
2885						2890					2895		Glu
Arg	Cys	Val	Glu	Asp	Pro	Glu	Thr	Gly	Leu	Cys	Leu	Leu	Pro
2900						2905					2910		Leu
Thr	Asp	Lys	Ala	Ala	Lys	Gly	Gly	Glu	Leu	Val	Tyr	Thr	Asp
2915						2920					2925		Ser
Glu	Ala	Arg	Asp	Val	Phe	Glu	Lys	Ala	Thr	Val	Ser	Ala	Pro
2930						2935					2940		Phe
Gly	Lys	Phe	Gln	Gly	Lys	Thr	Val	Thr	Ile	Trp	Glu	Ile	Ile
2945						2950					2955		Asn
Ser	Glu	Tyr	Phe	Thr	Ala	Glu	Gln	Arg	Arg	Asp	Leu	Leu	Arg
2960						2965					2970		Gln
Phe	Arg	Thr	Gly	Arg	Ile	Thr	Val	Glu	Lys	Ile	Ile	Lys	Ile
2975						2980					2985		Ile
Ile	Thr	Val	Val	Glu	Glu	Gln	Glu	Gln	Lys	Gly	Arg	Leu	Cys
2990						2995					3000		Phe

Glu Gly Leu Arg Ser Leu Val Pro Ala Ala Glu Leu Leu Glu Ser
3005 3010 3015

Arg Val Ile Asp Arg Glu Leu Tyr Gln Gln Leu Gln Arg Gly Glu
3020 3025 3030

Arg Ser Val Arg Asp Val Ala Glu Val Asp Thr Val Arg Arg Ala
3035 3040 3045

Leu Arg Gly Ala Asn Val Ile Ala Gly Val Trp Leu Glu Glu Ala
3050 3055 3060

Gly Gln Lys Leu Ser Ile Tyr Asn Ala Leu Lys Lys Asp Leu Leu
3065 3070 3075

Pro Ser Asp Met Ala Val Ala Leu Leu Glu Ala Gln Ala Gly Thr
3080 3085 3090

Gly His Ile Ile Asp Pro Ala Thr Ser Ala Arg Leu Thr Val Asp
3095 3100 3105

Glu Ala Val Arg Ala Gly Leu Val Gly Pro Glu Phe His Glu Lys
3110 3115 3120

Leu Leu Ser Ala Glu Lys Ala Val Thr Gly Tyr Arg Asp Pro Tyr
3125 3130 3135

Thr Gly Gln Ser Val Ser Leu Phe Gln Ala Leu Lys Lys Gly Leu
3140 3145 3150

Ile Pro Arg Glu Gln Gly Leu Arg Leu Leu Asp Ala Gln Leu Ser
3155 3160 3165

Thr Gly Gly Ile Val Asp Pro Ser Lys Ser His Arg Val Pro Leu
3170 3175 3180

Asp Val Ala Cys Ala Arg Gly Cys Leu Asp Glu Glu Thr Ser Arg
3185 3190 3195

Ala Leu Ser Ala Pro Arg Ala Asp Ala Lys Ala Tyr Ser Asp Pro
3200 3205 3210

Ser Thr Gly Glu Pro Ala Thr Tyr Gly Glu Leu Gln Gln Arg Cys
3215 3220 3225

Arg Pro Asp Gln Leu Thr Gly Leu Ser Leu Leu Pro Leu Ser Glu
3230 3235 3240

Lys Ala Ala Arg Ala Arg Gln Glu Glu Leu Tyr Ser Glu Leu Gln
3245 3250 3255

Ala Arg Glu Thr Phe Glu Lys Thr Pro Val Glu Val Pro Val Gly
3260 3265 3270

Gly Phe Lys Gly Arg Thr Val Thr Val Trp Glu Leu Ile Ser Ser
3275 3280 3285

Glu Tyr Phe Thr Ala Glu Gln Arg Gln Glu Leu Leu Arg Gln Phe
3290 3295 3300

Arg Thr Gly Lys Val Thr Val Glu Lys Val Ile Lys Ile Leu Ile
3305 3310 3315

Thr Ile Val Glu Glu Val Glu Thr Leu Arg Gln Glu Arg Leu Ser
3320 3325 3330

Phe Ser Gly Leu Arg Ala Pro Val Pro Ala Ser Glu Leu Leu Ala
3335 3340 3345

Ser Gly Val Leu Ser Arg Ala Gln Phe Glu Gln Leu Lys Asp Gly
3350 3355 3360

Lys Thr Thr Val Lys Asp Leu Ser Glu Leu Gly Ser Val Arg Thr
3365 3370 3375

Leu Leu Gln Gly Ser Gly Cys Leu Ala Gly Ile Tyr Leu Glu Asp
3380 3385 3390

Thr Lys Glu Lys Val Ser Ile Tyr Glu Ala Met Arg Arg Gly Leu
3395 3400 3405

Leu Arg Ala Thr Thr Ala Ala Leu Leu Leu Glu Ala Gln Ala Ala
3410 3415 3420

Thr Gly Phe Leu Val Asp Pro Val Arg Asn Gln Arg Leu Tyr Val
3425 3430 3435

His Glu Ala Val Lys Ala Gly Val Val Gly Pro Glu Leu His Glu
3440 3445 3450

Gln Leu Leu Ser Ala Glu Lys Ala Val Thr Gly Tyr Arg Asp Pro
3455 3460 3465

Tyr Ser Gly Ser Thr Ile Ser Leu Phe Gln Ala Met Gln Lys Gly
3470 3475 3480

Leu Val Leu Arg Gln His Gly Ile Arg Leu Leu Glu Ala Gln Ile
3485 3490 3495

Ala Thr Gly Gly Ile Ile Asp Pro Val His Ser His Arg Val Pro
3500 3505 3510

Val Asp Val Ala Tyr Gln Arg Gly Tyr Phe Ser Glu Glu Met Asn
3515 3520 3525

Arg Val Leu Ala Asp Pro Ser Asp Asp Thr Lys Gly Phe Phe Asp
3530 3535 3540

Pro Asn Thr His Glu Asn Leu Thr Tyr Arg Gln Leu Leu Glu Arg
3545 3550 3555

Cys Val Glu Asp Pro Glu Thr Gly Leu Arg Leu Leu Pro Leu Lys
3560 3565 3570

Gly Ala Glu Lys Ala Glu Val Val Glu Thr Thr Gln Val Tyr Thr
3575 3580 3585

Glu Glu Glu Thr Arg Arg Ala Phe Glu Glu Thr Gln Ile Asp Ile
3590 3595 3600

Pro Gly Gly Gly Ser His Gly Gly Ser Thr Met Ser Leu Trp Glu
3605 3610 3615

Val Met Gln Ser Asp Leu Ile Pro Glu Glu Gln Arg Ala Gln Leu
3620 3625 3630

Met Ala Asp Phe Gln Ala Gly Arg Val Thr Lys Glu Arg Met Ile

3635		3640		3645
Ile Ile Ile Ile Glu Ile Ile Glu Lys Thr Glu Ile Ile Arg Gln				
3650		3655		3660
Gln Gly Leu Ala Ser Tyr Asp Tyr Val Arg Arg Arg Leu Thr Ala				
3665		3670		3675
Glu Asp Leu Phe Glu Ala Arg Ile Ile Ser Leu Glu Thr Tyr Asn				
3680		3685		3690
Leu Leu Arg Glu Gly Thr Arg Ser Leu Arg Glu Ala Leu Glu Ala				
3695		3700		3705
Glu Ser Ala Trp Cys Tyr Leu Tyr Gly Thr Gly Ser Val Ala Gly				
3710		3715		3720
Val Tyr Leu Pro Gly Ser Arg Gln Thr Leu Ser Ile Tyr Gln Ala				
3725		3730		3735
Leu Lys Lys Gly Leu Leu Ser Ala Glu Val Ala Arg Leu Leu Leu				
3740		3745		3750
Glu Ala Gln Ala Ala Thr Gly Phe Leu Leu Asp Pro Val Lys Gly				
3755		3760		3765
Glu Arg Leu Thr Val Asp Glu Ala Val Arg Lys Gly Leu Val Gly				
3770		3775		3780
Pro Glu Leu His Asp Arg Leu Leu Ser Ala Glu Arg Ala Val Thr				
3785		3790		3795
Gly Tyr Arg Asp Pro Tyr Thr Glu Gln Thr Ile Ser Leu Phe Gln				
3800		3805		3810
Ala Met Lys Lys Glu Leu Ile Pro Thr Glu Glu Ala Leu Arg Leu				
3815		3820		3825
Leu Asp Ala Gln Leu Ala Thr Gly Gly Ile Val Asp Pro Arg Leu				
3830		3835		3840
Gly Phe His Leu Pro Leu Glu Val Ala Tyr Gln Arg Gly Tyr Leu				
3845		3850		3855

Asn Lys Asp Thr His Asp Gln Leu Ser Glu Pro Ser Glu Val Arg
3860 3865 3870

Ser Tyr Val Asp Pro Ser Thr Asp Glu Arg Leu Ser Tyr Thr Gln
3875 3880 3885

Leu Leu Arg Arg Cys Arg Arg Asp Asp Gly Thr Gly Gln Leu Leu
3890 3895 3900

Leu Pro Leu Ser Asp Ala Arg Lys Leu Thr Phe Arg Gly Leu Arg
3905 3910 3915

Lys Gln Ile Thr Met Glu Glu Leu Val Arg Ser Gln Val Met Asp
3920 3925 3930

Glu Ala Thr Ala Leu Gln Leu Arg Glu Gly Leu Thr Ser Ile Glu
3935 3940 3945

Glu Val Thr Lys Asn Leu Gln Lys Phe Leu Glu Gly Thr Ser Cys
3950 3955 3960

Ile Ala Gly Val Phe Val Asp Ala Thr Lys Glu Arg Leu Ser Val
3965 3970 3975

Tyr Gln Ala Met Lys Lys Gly Ile Ile Arg Pro Gly Thr Ala Phe
3980 3985 3990

Glu Leu Leu Glu Ala Gln Ala Ala Thr Gly Tyr Val Ile Asp Pro
3995 4000 4005

Ile Lys Gly Leu Lys Leu Thr Val Glu Glu Ala Val Arg Met Gly
4010 4015 4020

Ile Val Gly Pro Glu Phe Lys Asp Lys Leu Leu Ser Ala Glu Arg
4025 4030 4035

Ala Val Thr Gly Tyr Lys Asp Pro Tyr Ser Gly Lys Leu Ile Ser
4040 4045 4050

Leu Phe Gln Ala Met Lys Lys Gly Leu Ile Leu Lys Asp His Gly
4055 4060 4065

Ile Arg Leu Leu Glu Ala Gln Ile Ala Thr Gly Gly Ile Ile Asp
4070 4075 4080

Pro Glu Glu Ser His Arg Leu Pro Val Glu Val Ala Tyr Lys Arg
4085 4090 4095

Gly Leu Phe Asp Glu Glu Met Asn Glu Ile Leu Thr Asp Pro Ser
4100 4105 4110

Asp Asp Thr Lys Gly Phe Phe Asp Pro Asn Thr Glu Glu Asn Leu
4115 4120 4125

Thr Tyr Leu Gln Leu Met Glu Arg Cys Ile Thr Asp Pro Gln Thr
4130 4135 4140

Gly Leu Cys Leu Leu Pro Leu Lys Glu Lys Lys Arg Glu Arg Lys
4145 4150 4155

Thr Ser Ser Lys Ser Ser Val Arg Lys Arg Arg Val Val Ile Val
4160 4165 4170

Asp Pro Glu Thr Gly Lys Glu Met Ser Val Tyr Glu Ala Tyr Arg
4175 4180 4185

Lys Gly Leu Ile Asp His Gln Thr Tyr Leu Glu Leu Ser Glu Gln
4190 4195 4200

Glu Cys Glu Trp Glu Glu Ile Thr Ile Ser Ser Ser Asp Gly Val
4205 4210 4215

Val Lys Ser Met Ile Ile Asp Arg Arg Ser Gly Arg Gln Tyr Asp
4220 4225 4230

Ile Asp Asp Ala Ile Ala Lys Asn Leu Ile Asp Arg Ser Ala Leu
4235 4240 4245

Asp Gln Tyr Arg Ala Gly Thr Leu Ser Ile Thr Glu Phe Ala Asp
4250 4255 4260

Met Leu Ser Gly Asn Ala Gly Gly Phe Arg Ser Arg Ser Ser Ser
4265 4270 4275

Val Gly Ser Ser Ser Ser Tyr Pro Ile Ser Pro Ala Val Ser Arg
4280 4285 4290

Thr Gln Leu Ala Ser Trp Ser Asp Pro Thr Glu Glu Thr Gly Pro
4295 4300 4305

Val Ala Gly Ile Leu Asp Thr Glu Thr Leu Glu Lys Val Ser Ile
4310 4315 4320

Thr Glu Ala Met His Arg Asn Leu Val Asp Asn Ile Thr Gly Gln
4325 4330 4335

Arg Leu Leu Glu Ala Gln Ala Cys Thr Gly Gly Ile Ile Asp Pro
4340 4345 4350

Ser Thr Gly Glu Arg Phe Pro Val Thr Asp Ala Val Asn Lys Gly
4355 4360 4365

Leu Val Asp Lys Ile Met Val Asp Arg Ile Asn Leu Ala Gln Lys
4370 4375 4380

Ala Phe Cys Gly Phe Glu Asp Pro Arg Thr Lys Thr Lys Met Ser
4385 4390 4395

Ala Ala Gln Ala Leu Lys Lys Gly Trp Leu Tyr Tyr Glu Ala Gly
4400 4405 4410

Gln Arg Phe Leu Glu Val Gln Tyr Leu Thr Gly Gly Leu Ile Glu
4415 4420 4425

Pro Asp Thr Pro Gly Arg Val Pro Leu Asp Glu Ala Leu Gln Arg
4430 4435 4440

Gly Thr Val Asp Ala Arg Thr Ala Gln Lys Leu Arg Asp Val Gly
4445 4450 4455

Ala Tyr Ser Lys Tyr Leu Thr Cys Pro Lys Thr Lys Leu Lys Ile
4460 4465 4470

Ser Tyr Lys Asp Ala Leu Asp Arg Ser Met Val Glu Glu Gly Thr
4475 4480 4485

Gly Leu Arg Leu Leu Glu Ala Ala Ala Gln Ser Thr Lys Gly Tyr

4490		4495		4500
Tyr Ser Pro Tyr Ser Val Ser Gly Ser Gly Ser Thr Ala Gly Ser				
4505		4510		4515
Arg Thr Gly Ser Arg Thr Gly Ser Arg Ala Gly Ser Arg Arg Gly				
4520		4525		4530
Ser Phe Asp Ala Thr Gly Ser Gly Phe Ser Met Thr Phe Ser Ser				
4535		4540		4545
Ser Ser Tyr Ser Ser Ser Gly Tyr Gly Arg Arg Tyr Ala Ser Gly				
4550		4555		4560
Ser Ser Ala Ser Leu Gly Gly Pro Glu Ser Ala Val Ala				
4565		4570		4575

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 <211> 860
 <212> PRT
 <213> homo sapiens
 <400> 282

Met Gly Pro Trp Gly Trp Lys Leu Arg Trp Thr Val Ala Leu Leu Leu				
1	5	10	15	
Ala Ala Ala Gly Thr Ala Val Gly Asp Arg Cys Glu Arg Asn Glu Phe				
20	25	30		
Gln Cys Gln Asp Gly Lys Cys Ile Ser Tyr Lys Trp Val Cys Asp Gly				
35	40	45		
Ser Ala Glu Cys Gln Asp Gly Ser Asp Glu Ser Gln Glu Thr Cys Leu				
50	55	60		
Ser Val Thr Cys Lys Ser Gly Asp Phe Ser Cys Gly Gly Arg Val Asn				
65	70	75	80	
Arg Cys Ile Pro Gln Phe Trp Arg Cys Asp Gly Gln Val Asp Cys Asp				
85	90	95		
Asn Gly Ser Asp Glu Gln Gly Cys Pro Pro Lys Thr Cys Ser Gln Asp				
100	105	110		

Glu Phe Arg Cys His Asp Gly Lys Cys Ile Ser Arg Gln Phe Val Cys
115 120 125

Asp Ser Asp Arg Asp Cys Leu Asp Gly Ser Asp Glu Ala Ser Cys Pro
130 135 140

Val Leu Thr Cys Gly Pro Ala Ser Phe Gln Cys Asn Ser Ser Thr Cys
145 150 155 160

Ile Pro Gln Leu Trp Ala Cys Asp Asn Asp Pro Asp Cys Glu Asp Gly
165 170 175

Ser Asp Glu Trp Pro Gln Arg Cys Arg Gly Leu Tyr Val Phe Gln Gly
180 185 190

Asp Ser Ser Pro Cys Ser Ala Phe Glu Phe His Cys Leu Ser Gly Glu
195 200 205

Cys Ile His Ser Ser Trp Arg Cys Asp Gly Gly Pro Asp Cys Lys Asp
210 215 220

Lys Ser Asp Glu Glu Asn Cys Ala Val Ala Thr Cys Arg Pro Asp Glu
225 230 235 240

Phe Gln Cys Ser Asp Gly Asn Cys Ile His Gly Ser Arg Gln Cys Asp
245 250 255

Arg Glu Tyr Asp Cys Lys Asp Met Ser Asp Glu Val Gly Cys Val Asn
260 265 270

Val Thr Leu Cys Glu Gly Pro Asn Lys Phe Lys Cys His Ser Gly Glu
275 280 285

Cys Ile Thr Leu Asp Lys Val Cys Asn Met Ala Arg Asp Cys Arg Asp
290 295 300

Trp Ser Asp Glu Pro Ile Lys Glu Cys Gly Thr Asn Glu Cys Leu Asp
305 310 315 320

Asn Asn Gly Gly Cys Ser His Val Cys Asn Asp Leu Lys Ile Gly Tyr
325 330 335

Glu Cys Leu Cys Pro Asp Gly Phe Gln Leu Val Ala Gln Arg Arg Cys
340 345 350

Glu Asp Ile Asp Glu Cys Gln Asp Pro Asp Thr Cys Ser Gln Leu Cys
355 360 365

Val Asn Leu Glu Gly Gly Tyr Lys Cys Gln Cys Glu Glu Gly Phe Gln
370 375 380

Leu Asp Pro His Thr Lys Ala Cys Lys Ala Val Gly Ser Ile Ala Tyr
385 390 395 400

Leu Phe Phe Thr Asn Arg His Glu Val Arg Lys Met Thr Leu Asp Arg
405 410 415

Ser Glu Tyr Thr Ser Leu Ile Pro Asn Leu Arg Asn Val Val Ala Leu
420 425 430

Asp Thr Glu Val Ala Ser Asn Arg Ile Tyr Trp Ser Asp Leu Ser Gln
435 440 445

Arg Met Ile Cys Ser Thr Gln Leu Asp Arg Ala His Gly Val Ser Ser
450 455 460

Tyr Asp Thr Val Ile Ser Arg Asp Ile Gln Ala Pro Asp Gly Leu Ala
465 470 475 480

Val Asp Trp Ile His Ser Asn Ile Tyr Trp Thr Asp Ser Val Leu Gly
485 490 495

Thr Val Ser Val Ala Asp Thr Lys Gly Val Lys Arg Lys Thr Leu Phe
500 505 510

Arg Glu Asn Gly Ser Lys Pro Arg Ala Ile Val Val Asp Pro Val His
515 520 525

Gly Phe Met Tyr Trp Thr Asp Trp Gly Thr Pro Ala Lys Ile Lys Lys
530 535 540

Gly Gly Leu Asn Gly Val Asp Ile Tyr Ser Leu Val Thr Glu Asn Ile
545 550 555 560

Gln Trp Pro Asn Gly Ile Thr Leu Asp Leu Leu Ser Gly Arg Leu Tyr

565																570																575																		
Trp	Val	Asp	Ser	Lys	Leu	His	Ser	Ile	Ser	Ser	Ile	Asp	Val	Asn	Gly																																			
			580																	585																	590													
Gly	Asn	Arg	Lys	Thr	Ile	Leu	Glu	Asp	Glu	Lys	Arg	Leu	Ala	His	Pro																																			
			595																	600																	605													
Phe	Ser	Leu	Ala	Val	Phe	Glu	Asp	Lys	Val	Phe	Trp	Thr	Asp	Ile	Ile																																			
			610																	615																	620													
Asn	Glu	Ala	Ile	Phe	Ser	Ala	Asn	Arg	Leu	Thr	Gly	Ser	Asp	Val	Asn																																			
			625																	630																	635													
Leu	Leu	Ala	Glu	Asn	Leu	Leu	Ser	Pro	Glu	Asp	Met	Val	Leu	Phe	His																																			
																				645																	650													
Asn	Leu	Thr	Gln	Pro	Arg	Gly	Val	Asn	Trp	Cys	Glu	Arg	Thr	Thr	Leu																																			
			660																	665																	670													
Ser	Asn	Gly	Gly	Cys	Gln	Tyr	Leu	Cys	Leu	Pro	Ala	Pro	Gln	Ile	Asn																																			
			675																	680																	685													
Pro	His	Ser	Pro	Lys	Phe	Thr	Cys	Ala	Cys	Pro	Asp	Gly	Met	Leu	Leu																																			
			690																	695																	700													
Ala	Arg	Asp	Met	Arg	Ser	Cys	Leu	Thr	Glu	Ala	Glu	Ala	Ala	Val	Ala																																			
			705																	710																	715													
Thr	Gln	Glu	Thr	Ser	Thr	Val	Arg	Leu	Lys	Val	Ser	Ser	Thr	Ala	Val																																			
																				725																	730													
Arg	Thr	Gln	His	Thr	Thr	Thr	Arg	Pro	Val	Pro	Asp	Thr	Ser	Arg	Leu																																			
			740																	745																	750													
Pro	Gly	Ala	Thr	Pro	Gly	Leu	Thr	Thr	Val	Glu	Ile	Val	Thr	Met	Ser																																			
			755																	760																	765													
His	Gln	Ala	Leu	Gly	Asp	Val	Ala	Gly	Arg	Gly	Asn	Glu	Lys	Lys	Pro																																			
			770																	775																	780													
Ser	Ser	Val	Arg	Ala	Leu	Ser	Ile	Val	Leu	Pro	Ile	Val	Leu	Leu	Val																																			
			785																	790																	795													

Phe Leu Cys Leu Gly Val Phe Leu Leu Trp Lys Asn Trp Arg Leu Lys
805 810 815

Asn Ile Asn Ser Ile Asn Phe Asp Asn Pro Val Tyr Gln Lys Thr Thr
820 825 830

Glu Asp Glu Val His Ile Cys His Asn Gln Asp Gly Tyr Ser Tyr Pro
835 840 845

Ser Arg Gln Met Val Ser Leu Glu Asp Asp Val Ala
850 855 860

<210> 283
<211> 192
<212> PRT
<213> homo sapiens

<400> 283

Met Gln Ala Ile Lys Cys Val Val Val Gly Asp Gly Ala Val Gly Lys
1 5 10 15

Thr Cys Leu Leu Ile Ser Tyr Thr Thr Asn Ala Phe Pro Gly Glu Tyr
20 25 30

Ile Pro Thr Val Phe Asp Asn Tyr Ser Ala Asn Val Met Val Asp Ser
35 40 45

Lys Pro Val Asn Leu Gly Leu Trp Asp Thr Ala Gly Gln Glu Asp Tyr
50 55 60

Asp Arg Leu Arg Pro Leu Ser Tyr Pro Gln Thr Asp Val Phe Leu Ile
65 70 75 80

Cys Phe Ser Leu Val Ser Pro Ala Ser Tyr Glu Asn Val Arg Ala Lys
85 90 95

Trp Phe Pro Glu Val Arg His His Cys Pro Ser Thr Pro Ile Ile Leu
100 105 110

Val Gly Thr Lys Leu Asp Leu Arg Asp Asp Lys Asp Thr Ile Glu Lys
115 120 125

Leu Lys Glu Lys Lys Leu Ala Pro Ile Thr Tyr Pro Gln Gly Leu Ala
130 135 140

Leu Ala Lys Glu Ile Asp Ser Val Lys Tyr Leu Glu Cys Ser Ala Leu
145 150 155 160

Thr Gln Arg Gly Leu Lys Thr Val Phe Asp Glu Ala Ile Arg Ala Val
165 170 175

Leu Cys Pro Gln Pro Thr Arg Gln Gln Lys Arg Ala Cys Ser Leu Leu
180 185 190

<210> 284
<211> 480
<212> PRT
<213> homo sapiens

<400> 284

Met Ile Arg Ala Ala Pro Pro Pro Leu Phe Leu Leu Leu Leu Leu Leu
1 5 10 15

Leu Leu Leu Val Ser Trp Ala Ser Arg Gly Glu Ala Ala Pro Asp Gln
20 25 30

Asp Glu Ile Gln Arg Leu Pro Gly Leu Ala Lys Gln Pro Ser Phe Arg
35 40 45

Gln Tyr Ser Gly Tyr Leu Lys Gly Ser Gly Ser Lys His Leu His Tyr
50 55 60

Trp Phe Val Glu Ser Gln Lys Asp Pro Glu Asn Ser Pro Val Val Leu
65 70 75 80

Trp Leu Asn Gly Gly Pro Gly Cys Ser Ser Leu Asp Gly Leu Leu Thr
85 90 95

Glu His Gly Pro Phe Leu Val Gln Pro Asp Gly Val Thr Leu Glu Tyr
100 105 110

Asn Pro Tyr Ser Trp Asn Leu Ile Ala Asn Val Leu Tyr Leu Glu Ser
115 120 125

Pro Ala Gly Val Gly Phe Ser Tyr Ser Asp Asp Lys Phe Tyr Ala Thr
130 135 140

Asn Asp Thr Glu Val Ala Gln Ser Asn Phe Glu Ala Leu Gln Asp Phe
145 150 155 160

Phe Arg Leu Phe Pro Glu Tyr Lys Asn Asn Lys Leu Phe Leu Thr Gly
165 170 175

Glu Ser Tyr Ala Gly Ile Tyr Ile Pro Thr Leu Ala Val Leu Val Met
180 185 190

Gln Asp Pro Ser Met Asn Leu Gln Gly Leu Ala Val Gly Asn Gly Leu
195 200 205

Ser Ser Tyr Glu Gln Asn Asp Asn Ser Leu Val Tyr Phe Ala Tyr Tyr
210 215 220

His Gly Leu Leu Gly Asn Arg Leu Trp Ser Ser Leu Gln Thr His Cys
225 230 235 240

Cys Ser Gln Asn Lys Cys Asn Phe Tyr Asp Asn Lys Asp Leu Glu Cys
245 250 255

Val Thr Asn Leu Gln Glu Val Ala Arg Ile Val Gly Asn Ser Gly Leu
260 265 270

Asn Ile Tyr Asn Leu Tyr Ala Pro Cys Ala Gly Gly Val Pro Ser His
275 280 285

Phe Arg Tyr Glu Lys Asp Thr Val Val Val Gln Asp Leu Gly Asn Ile
290 295 300

Phe Thr Arg Leu Pro Leu Lys Arg Met Trp His Gln Ala Leu Leu Arg
305 310 315 320

Ser Gly Asp Lys Val Arg Met Asp Pro Pro Cys Thr Asn Thr Thr Ala
325 330 335

Ala Ser Thr Tyr Leu Asn Asn Pro Tyr Val Arg Lys Ala Leu Asn Ile
340 345 350

Pro Glu Gln Leu Pro Gln Trp Asp Met Cys Asn Phe Leu Val Asn Leu
355 360 365

Gln Tyr Arg Arg Leu Tyr Arg Ser Met Asn Ser Gln Tyr Leu Lys Leu
370 375 380

Leu Ser Ser Gln Lys Tyr Gln Ile Leu Leu Tyr Asn Gly Asp Val Asp
385 390 395 400

Met Ala Cys Asn Phe Met Gly Asp Glu Trp Phe Val Asp Ser Leu Asn
405 410 415

Gln Lys Met Glu Val Gln Arg Arg Pro Trp Leu Val Lys Tyr Gly Asp
420 425 430

Ser Gly Glu Gln Ile Ala Gly Phe Val Lys Glu Phe Ser His Ile Ala
435 440 445

Phe Leu Thr Ile Lys Gly Ala Gly His Met Val Pro Thr Asp Lys Pro
450 455 460

Leu Ala Ala Phe Thr Met Phe Ser Arg Phe Leu Asn Lys Gln Pro Tyr
465 470 475 480

<210> 285
<211> 508
<212> PRT
<213> homo sapiens

<400> 285

Met Leu Arg Arg Ala Leu Leu Cys Leu Ala Val Ala Ala Leu Val Arg
1 5 10 15

Ala Asp Ala Pro Glu Glu Glu Asp His Val Leu Val Leu Arg Lys Ser
20 25 30

Asn Phe Ala Glu Ala Leu Ala Ala His Lys Tyr Leu Leu Val Glu Phe
35 40 45

Tyr Ala Pro Trp Cys Gly His Cys Lys Ala Leu Ala Pro Glu Tyr Ala
50 55 60

Lys Ala Ala Gly Lys Leu Lys Ala Glu Gly Ser Glu Ile Arg Leu Ala
65 70 75 80

Lys Val Asp Ala Thr Glu Glu Ser Asp Leu Ala Gln Gln Tyr Gly Val

85

90

95

Arg Gly Tyr Pro Thr Ile Lys Phe Phe Arg Asn Gly Asp Thr Ala Ser
 100 105 110

Pro Lys Glu Tyr Thr Ala Gly Arg Glu Ala Asp Asp Ile Val Asn Trp
 115 120 125

Leu Lys Lys Arg Thr Gly Pro Ala Ala Thr Thr Leu Pro Asp Gly Ala
 130 135 140

Ala Ala Glu Ser Leu Val Glu Ser Ser Glu Val Ala Val Ile Gly Phe
 145 150 155 160

Phe Lys Asp Val Glu Ser Asp Ser Ala Lys Gln Phe Leu Gln Ala Ala
 165 170 175

Glu Ala Ile Asp Asp Ile Pro Phe Gly Ile Thr Ser Asn Ser Asp Val
 180 185 190

Phe Ser Lys Tyr Gln Leu Asp Lys Asp Gly Val Val Leu Phe Lys Lys
 195 200 205

Phe Asp Glu Gly Arg Asn Asn Phe Glu Gly Glu Val Thr Lys Glu Asn
 210 215 220

Leu Leu Asp Phe Ile Lys His Asn Gln Leu Pro Leu Val Ile Glu Phe
 225 230 235 240

Thr Glu Gln Thr Ala Pro Lys Ile Phe Gly Gly Glu Ile Lys Thr His
 245 250 255

Ile Leu Leu Phe Leu Pro Lys Ser Val Ser Asp Tyr Asp Gly Lys Leu
 260 265 270

Ser Asn Phe Lys Thr Ala Ala Glu Ser Phe Lys Gly Lys Ile Leu Phe
 275 280 285

Ile Phe Ile Asp Ser Asp His Thr Asp Asn Gln Arg Ile Leu Glu Phe
 290 295 300

Phe Gly Leu Lys Lys Glu Glu Cys Pro Ala Val Arg Leu Ile Thr Leu
 305 310 315 320

Glu Glu Glu Met Thr Lys Tyr Lys Pro Glu Ser Glu Glu Leu Thr Ala
325 330 335

Glu Arg Ile Thr Glu Phe Cys His Arg Phe Leu Glu Gly Lys Ile Lys
340 345 350

Pro His Leu Met Ser Gln Glu Leu Pro Glu Asp Trp Asp Lys Gln Pro
355 360 365

Val Lys Val Leu Val Gly Lys Asn Phe Glu Asp Val Ala Phe Asp Glu
370 375 380

Lys Lys Asn Val Phe Val Glu Phe Tyr Ala Pro Trp Cys Gly His Cys
385 390 395 400

Lys Gln Leu Ala Pro Ile Trp Asp Lys Leu Gly Glu Thr Tyr Lys Asp
405 410 415

His Glu Asn Ile Val Ile Ala Lys Met Asp Ser Thr Ala Asn Glu Val
420 425 430

Glu Ala Val Lys Val His Ser Phe Pro Thr Leu Lys Phe Phe Pro Ala
435 440 445

Ser Ala Asp Arg Thr Val Ile Asp Tyr Asn Gly Glu Arg Thr Leu Asp
450 455 460

Gly Phe Lys Lys Phe Leu Glu Ser Gly Gly Gln Asp Gly Ala Gly Asp
465 470 475 480

Asp Asp Asp Leu Glu Asp Leu Glu Glu Ala Glu Glu Pro Asp Met Glu
485 490 495

Glu Asp Asp Asp Gln Lys Ala Val Lys Asp Glu Leu
500 505

<210> 286
<211> 246
<212> PRT
<213> homo sapiens

<400> 286

Met	Tyr	Gln	Val	Ser	Gly	Gln	Arg	Pro	Ser	Gly	Cys	Asp	Ala	Pro	Tyr	
1				5					10					15		
Gly	Ala	Pro	Ser	Ala	Ala	Pro	Gly	Pro	Ala	Gln	Thr	Leu	Ser	Leu	Leu	
			20					25					30			
Pro	Gly	Leu	Glu	Val	Val	Thr	Gly	Ser	Thr	His	Pro	Ala	Glu	Ala	Ala	
		35					40					45				
Pro	Glu	Glu	Gly	Ser	Leu	Glu	Glu	Ala	Ala	Thr	Pro	Met	Pro	Gln	Gly	
	50					55					60					
Asn	Gly	Pro	Gly	Ile	Pro	Gln	Gly	Leu	Asp	Ser	Thr	Asp	Leu	Asp	Val	
65					70					75					80	
Pro	Thr	Glu	Ala	Val	Thr	Cys	Gln	Pro	Gln	Gly	Asn	Pro	Leu	Gly	Cys	
				85					90					95		
Thr	Pro	Leu	Leu	Pro	Asn	Asp	Ser	Gly	His	Pro	Ser	Glu	Leu	Gly	Gly	
		100						105					110			
Thr	Arg	Arg	Ala	Gly	Asn	Gly	Ala	Leu	Gly	Gly	Pro	Lys	Ala	His	Arg	
		115					120					125				
Lys	Leu	Gln	Thr	His	Pro	Ser	Leu	Ala	Ser	Gln	Gly	Ser	Lys	Lys	Ser	
	130					135					140					
Lys	Ser	Ser	Ser	Lys	Ser	Thr	Thr	Ser	Gln	Ile	Pro	Leu	Gln	Ala	Gln	
145					150					155					160	
Glu	Asp	Cys	Cys	Val	His	Cys	Ile	Leu	Ser	Cys	Leu	Phe	Cys	Glu	Phe	
				165					170					175		
Leu	Thr	Leu	Cys	Asn	Ile	Val	Leu	Asp	Cys	Ala	Thr	Cys	Gly	Ser	Cys	
			180					185					190			
Ser	Ser	Glu	Asp	Ser	Cys	Leu	Cys	Cys	Cys	Cys	Cys	Gly	Ser	Gly	Glu	
		195					200					205				
Cys	Ala	Asp	Cys	Asp	Leu	Pro	Cys	Asp	Leu	Asp	Cys	Gly	Ile	Leu	Asp	
	210					215					220					
Ala	Cys	Cys	Glu	Ser	Ala	Asp	Cys	Leu	Glu	Ile	Cys	Met	Glu	Cys	Cys	

225

230

235

240

Gly Leu Cys Phe Ser Ser
245

<210> 287

<211> 68

<212> PRT

<213> homo sapiens

<400> 287

Met Asp Gln Val Met Gln Phe Val Glu Pro Ser Arg Gln Phe Val Lys
1 5 10 15

Asp Ser Ile Arg Leu Val Lys Arg Cys Thr Lys Pro Asp Arg Lys Glu
20 25 30

Phe Gln Lys Ile Ala Met Ala Thr Ala Ile Gly Phe Ala Ile Met Gly
35 40 45

Phe Ile Gly Phe Phe Val Lys Leu Ile His Ile Pro Ile Asn Asn Ile
50 55 60

Ile Val Gly Gly
65

<210> 288

<211> 1325

<212> PRT

<213> homo sapiens

<400> 288

Ile Cys Gly Ala Gln Pro Val Pro Phe Val Pro Gln Val Leu Gly Val
1 5 10 15

Met Ile Gly Ala Gly Val Ala Val Val Val Thr Ala Val Leu Ile Leu
20 25 30

Leu Val Val Arg Arg Leu Arg Val Pro Lys Thr Pro Ala Pro Asp Gly
35 40 45

Pro Arg Tyr Arg Phe Arg Lys Arg Asp Lys Val Leu Phe Tyr Gly Arg
50 55 60

Lys Ile Met Arg Lys Val Ser Gln Ser Thr Ser Ser Leu Val Asp Thr
65 70 75 80

Ser Val Ser Ala Thr Ser Arg Pro Arg Met Arg Lys Lys Leu Lys Met
85 90 95

Leu Asn Ile Ala Lys Lys Ile Leu Arg Ile Gln Lys Glu Thr Pro Thr
100 105 110

Leu Gln Arg Lys Glu Pro Pro Pro Ala Val Leu Glu Ala Asp Leu Thr
115 120 125

Glu Gly Asp Leu Ala Asn Ser His Leu Pro Ser Glu Val Leu Tyr Met
130 135 140

Leu Lys Asn Val Arg Val Leu Gly His Phe Glu Lys Pro Leu Phe Leu
145 150 155 160

Glu Leu Cys Arg His Met Val Phe Gln Arg Leu Gly Gln Gly Asp Tyr
165 170 175

Val Phe Arg Pro Gly Gln Pro Asp Ala Ser Ile Tyr Val Val Gln Asp
180 185 190

Gly Leu Leu Glu Leu Cys Leu Pro Gly Pro Asp Gly Lys Glu Cys Val
195 200 205

Val Lys Glu Val Val Pro Gly Asp Ser Val Asn Ser Leu Leu Ser Ile
210 215 220

Leu Asp Val Ile Thr Gly His Gln His Pro Gln Arg Thr Val Ser Ala
225 230 235 240

Arg Ala Ala Arg Asp Ser Thr Val Leu Arg Leu Pro Val Glu Ala Phe
245 250 255

Ser Ala Val Phe Thr Lys Tyr Pro Glu Ser Leu Val Arg Val Val Gln
260 265 270

Ile Ile Met Val Arg Leu Gln Arg Val Thr Phe Leu Ala Leu His Asn
275 280 285

Tyr Leu Gly Leu Thr Asn Glu Leu Phe Ser His Glu Ile Gln Pro Leu

290					295					300					
Arg	Leu	Phe	Pro	Ser	Pro	Gly	Leu	Pro	Thr	Arg	Thr	Ser	Pro	Val	Arg
305					310					315					320
Gly	Ser	Lys	Arg	Met	Val	Ser	Thr	Ser	Ala	Thr	Asp	Glu	Pro	Arg	Glu
				325					330					335	
Thr	Pro	Gly	Arg	Pro	Pro	Asp	Pro	Thr	Gly	Ala	Pro	Leu	Pro	Gly	Pro
			340					345					350		
Thr	Gly	Asp	Pro	Val	Lys	Pro	Thr	Ser	Leu	Glu	Thr	Pro	Ser	Ala	Pro
		355					360					365			
Leu	Leu	Ser	Arg	Cys	Val	Ser	Met	Pro	Gly	Asp	Ile	Ser	Gly	Leu	Gln
	370						375				380				
Gly	Gly	Pro	Arg	Ser	Asp	Phe	Asp	Met	Ala	Tyr	Glu	Arg	Gly	Arg	Ile
385					390					395					400
Ser	Val	Ser	Leu	Gln	Glu	Glu	Ala	Ser	Gly	Gly	Ser	Leu	Ala	Ala	Pro
				405					410					415	
Ala	Arg	Thr	Pro	Thr	Gln	Glu	Pro	Arg	Glu	Gln	Pro	Ala	Gly	Ala	Cys
			420					425					430		
Glu	Tyr	Ser	Tyr	Cys	Glu	Asp	Glu	Ser	Ala	Thr	Gly	Gly	Cys	Pro	Phe
		435					440					445			
Gly	Pro	Tyr	Gln	Gly	Arg	Gln	Thr	Ser	Ser	Ile	Phe	Glu	Ala	Ala	Lys
	450					455					460				
Gln	Glu	Leu	Ala	Lys	Leu	Met	Arg	Ile	Glu	Asp	Pro	Ser	Leu	Leu	Asn
465					470					475					480
Ser	Arg	Val	Leu	Leu	His	His	Ala	Lys	Ala	Gly	Thr	Ile	Ile	Ala	Arg
				485					490					495	
Gln	Gly	Asp	Gln	Asp	Val	Ser	Leu	His	Phe	Val	Leu	Trp	Gly	Cys	Leu
			500					505					510		
His	Val	Tyr	Gln	Arg	Met	Ile	Asp	Lys	Ala	Glu	Asp	Val	Cys	Leu	Phe
		515					520					525			

Val Ala Gln Pro Gly Glu Leu Val Gly Gln Leu Ala Val Leu Thr Gly
530 535 540

Glu Pro Leu Ile Phe Thr Leu Arg Ala Gln Arg Asp Cys Thr Phe Leu
545 550 555 560

Arg Ile Ser Lys Ser Asp Phe Tyr Glu Ile Met Arg Ala Gln Pro Ser
565 570 575

Val Val Leu Ser Ala Ala His Thr Val Ala Ala Arg Met Ser Pro Phe
580 585 590

Val Arg Gln Met Asp Phe Ala Ile Asp Trp Thr Ala Val Glu Ala Gly
595 600 605

Arg Ala Leu Tyr Arg Gln Gly Asp Arg Ser Asp Cys Thr Tyr Ile Val
610 615 620

Leu Asn Gly Arg Leu Arg Ser Val Ile Gln Arg Gly Ser Gly Lys Lys
625 630 635 640

Glu Leu Val Gly Glu Tyr Gly Arg Gly Asp Leu Ile Gly Val Val Glu
645 650 655

Ala Leu Thr Arg Gln Pro Arg Ala Thr Thr Val His Ala Val Arg Asp
660 665 670

Thr Glu Leu Ala Lys Leu Pro Glu Gly Thr Leu Gly His Ile Lys Arg
675 680 685

Arg Tyr Pro Gln Val Val Thr Arg Leu Ile His Leu Leu Ser Gln Lys
690 695 700

Ile Leu Gly Asn Leu Gln Gln Leu Gln Gly Pro Phe Pro Gly Ser Gly
705 710 715 720

Leu Gly Val Pro Pro His Ser Glu Leu Thr Asn Pro Ala Ser Asn Leu
725 730 735

Ala Thr Val Ala Ile Leu Pro Val Cys Ala Glu Val Pro Met Val Ala
740 745 750

Phe Thr Leu Glu Leu Gln His Ala Leu Gln Ala Ile Gly Pro Thr Leu
755 760 765

Leu Leu Asn Ser Asp Ile Ile Arg Ala Arg Leu Gly Ala Ser Ala Leu
770 775 780

Asp Ser Ile Gln Glu Phe Arg Leu Ser Gly Trp Leu Ala Gln Gln Glu
785 790 795 800

Asp Ala His Arg Ile Val Leu Tyr Gln Thr Asp Ala Ser Leu Thr Pro
805 810 815

Trp Thr Val Arg Cys Leu Arg Gln Ala Asp Cys Ile Leu Ile Val Gly
820 825 830

Leu Gly Asp Gln Glu Pro Thr Leu Gly Gln Leu Glu Gln Met Leu Glu
835 840 845

Asn Thr Ala Val Arg Ala Leu Lys Gln Leu Val Leu Leu His Arg Glu
850 855 860

Glu Gly Ala Gly Pro Thr Arg Thr Val Glu Trp Leu Asn Met Arg Ser
865 870 875 880

Trp Cys Ser Gly His Leu His Leu Arg Cys Pro Arg Arg Leu Phe Ser
885 890 895

Arg Arg Ser Pro Ala Lys Leu His Glu Leu Tyr Glu Lys Val Phe Ser
900 905 910

Arg Arg Ala Asp Arg His Ser Asp Phe Ser Arg Leu Ala Arg Val Leu
915 920 925

Thr Gly Asn Thr Ile Ala Leu Val Leu Gly Gly Gly Gly Ala Arg Gly
930 935 940

Cys Ser His Ile Gly Val Leu Lys Ala Leu Glu Glu Ala Gly Val Pro
945 950 955 960

Val Asp Leu Val Gly Gly Thr Ser Ile Gly Ser Phe Ile Gly Ala Leu
965 970 975

Tyr Ala Glu Glu Arg Ser Ala Ser Arg Thr Lys Gln Arg Ala Arg Glu
980 985 990

Trp Ala Lys Ser Met Thr Ser Val Leu Glu Pro Val Leu Asp Leu Thr
995 1000 1005

Tyr Pro Val Thr Ser Met Phe Thr Gly Ser Ala Phe Asn Arg Ser
1010 1015 1020

Ile His Arg Val Phe Gln Asp Lys Gln Ile Glu Asp Leu Trp Leu
1025 1030 1035

Pro Tyr Phe Asn Val Thr Thr Asp Ile Thr Ala Ser Ala Met Arg
1040 1045 1050

Val His Lys Asp Gly Ser Leu Trp Arg Tyr Val Arg Ala Ser Met
1055 1060 1065

Thr Leu Ser Gly Tyr Leu Pro Pro Leu Cys Asp Pro Lys Asp Gly
1070 1075 1080

His Leu Leu Met Asp Gly Gly Tyr Ile Asn Asn Leu Pro Gly Asn
1085 1090 1095

Met Gly Ala Lys Thr Val Ile Ala Ile Asp Val Gly Ser Gln Asp
1100 1105 1110

Glu Thr Asp Leu Ser Thr Tyr Gly Asp Ser Leu Ser Gly Trp Trp
1115 1120 1125

Leu Leu Trp Lys Arg Leu Asn Pro Trp Ala Asp Lys Val Lys Val
1130 1135 1140

Pro Asp Met Ala Glu Ile Gln Ser Arg Leu Ala Tyr Val Ser Cys
1145 1150 1155

Val Arg Gln Leu Glu Val Val Lys Ser Ser Ser Tyr Cys Glu Tyr
1160 1165 1170

Leu Arg Pro Pro Ile Asp Cys Phe Lys Thr Met Asp Phe Gly Lys
1175 1180 1185

Phe Asp Gln Ile Tyr Asp Val Gly Tyr Gln Tyr Gly Lys Ala Val

1190		1195		1200
Phe Gly Gly Trp Ser Arg Gly Asn Val Ile Glu Lys Met Leu Thr				
1205		1210		1215
Asp Arg Arg Ser Thr Asp Leu Asn Glu Ser Arg Arg Ala Asp Val				
1220		1225		1230
Leu Ala Phe Pro Ser Ser Gly Phe Thr Asp Leu Ala Glu Ile Val				
1235		1240		1245
Ser Arg Ile Glu Pro Pro Thr Ser Tyr Val Ser Asp Gly Cys Ala				
1250		1255		1260
Asp Gly Glu Glu Ser Asp Cys Leu Thr Glu Tyr Glu Glu Asp Ala				
1265		1270		1275
Gly Pro Asp Cys Ser Arg Asp Glu Gly Gly Ser Pro Glu Gly Ala				
1280		1285		1290
Ser Pro Ser Thr Ala Ser Glu Met Glu Glu Glu Lys Ser Ile Leu				
1295		1300		1305
Arg Gln Arg Arg Cys Leu Pro Gln Glu Pro Pro Gly Ser Ala Thr				
1310		1315		1320
Asp Ala				
1325				

<210> 289
 <211> 1323
 <212> PRT
 <213> homo sapiens

<400> 289

Met Glu Ala Pro Leu Gln Thr Gly Met Val Leu Gly Val Met Ile Gly
1 5 10 15
Ala Gly Val Ala Val Val Val Thr Ala Val Leu Ile Leu Leu Val Val
20 25 30
Arg Arg Leu Arg Val Pro Lys Thr Pro Ala Pro Asp Gly Pro Arg Tyr
35 40 45

Arg Phe Arg Lys Arg Asp Lys Val Leu Phe Tyr Gly Arg Lys Ile Met
50 55 60

Arg Lys Val Ser Gln Ser Thr Ser Ser Leu Val Asp Thr Ser Val Ser
65 70 75 80

Ala Thr Ser Arg Pro Arg Met Arg Lys Lys Leu Lys Met Leu Asn Ile
85 90 95

Ala Lys Lys Ile Leu Arg Ile Gln Lys Glu Thr Pro Thr Leu Gln Arg
100 105 110

Lys Glu Pro Pro Pro Ala Val Leu Glu Ala Asp Leu Thr Glu Gly Asp
115 120 125

Leu Ala Asn Ser His Leu Pro Ser Glu Val Leu Tyr Met Leu Lys Asn
130 135 140

Val Arg Val Leu Gly His Phe Glu Lys Pro Leu Phe Leu Glu Leu Cys
145 150 155 160

Arg His Met Val Phe Gln Arg Leu Gly Gln Gly Asp Tyr Val Phe Arg
165 170 175

Pro Gly Gln Pro Asp Ala Ser Ile Tyr Val Val Gln Asp Gly Leu Leu
180 185 190

Glu Leu Cys Leu Pro Gly Pro Asp Gly Lys Glu Cys Val Val Lys Glu
195 200 205

Val Val Pro Gly Asp Ser Val Asn Ser Leu Leu Ser Ile Leu Asp Val
210 215 220

Ile Thr Gly His Gln His Pro Gln Arg Thr Val Ser Ala Arg Ala Ala
225 230 235 240

Arg Asp Ser Thr Val Leu Arg Leu Pro Val Glu Ala Phe Ser Ala Val
245 250 255

Phe Thr Lys Tyr Pro Glu Ser Leu Val Arg Val Val Gln Ile Ile Met
260 265 270

Val Arg Leu Gln Arg Val Thr Phe Leu Ala Leu His Asn Tyr Leu Gly
275 280 285

Leu Thr Asn Glu Leu Phe Ser His Glu Ile Gln Pro Leu Arg Leu Phe
290 295 300

Pro Ser Pro Gly Leu Pro Thr Arg Thr Ser Pro Val Arg Gly Ser Lys
305 310 315 320

Arg Met Val Ser Thr Ser Ala Thr Asp Glu Pro Arg Glu Thr Pro Gly
325 330 335

Arg Pro Pro Asp Pro Thr Gly Ala Pro Leu Pro Gly Pro Thr Gly Asp
340 345 350

Pro Val Lys Pro Thr Ser Leu Glu Thr Pro Ser Ala Pro Leu Leu Ser
355 360 365

Arg Cys Val Ser Met Pro Gly Asp Ile Ser Gly Leu Gln Gly Gly Pro
370 375 380

Arg Ser Asp Phe Asp Met Ala Tyr Glu Arg Gly Arg Ile Ser Val Ser
385 390 395 400

Leu Gln Glu Glu Ala Ser Gly Gly Ser Leu Ala Ala Pro Ala Arg Thr
405 410 415

Pro Thr Gln Glu Pro Arg Glu Gln Pro Ala Gly Ala Cys Glu Tyr Ser
420 425 430

Tyr Cys Glu Asp Glu Ser Ala Thr Gly Gly Cys Pro Phe Gly Pro Tyr
435 440 445

Gln Gly Arg Gln Thr Ser Ser Ile Phe Glu Ala Ala Lys Gln Glu Leu
450 455 460

Ala Lys Leu Met Arg Ile Glu Asp Pro Ser Leu Leu Asn Ser Arg Val
465 470 475 480

Leu Leu His His Ala Lys Ala Gly Thr Ile Ile Ala Arg Gln Gly Asp
485 490 495

Gln Asp Val Ser Leu His Phe Val Leu Trp Gly Cys Leu His Val Tyr

500

505

510

Gln Arg Met Ile Asp Lys Ala Glu Asp Val Cys Leu Phe Val Ala Gln
 515 520 525

Pro Gly Glu Leu Val Gly Gln Leu Ala Val Leu Thr Gly Glu Pro Leu
 530 535 540

Ile Phe Thr Leu Arg Ala Gln Arg Asp Cys Thr Phe Leu Arg Ile Ser
 545 550 555 560

Lys Ser Asp Phe Tyr Glu Ile Met Arg Ala Gln Pro Ser Val Val Leu
 565 570 575

Ser Ala Ala His Thr Val Ala Ala Arg Met Ser Pro Phe Val Arg Gln
 580 585 590

Met Asp Phe Ala Ile Asp Trp Thr Ala Val Glu Ala Gly Arg Ala Leu
 595 600 605

Tyr Arg Gln Gly Asp Arg Ser Asp Cys Thr Tyr Ile Val Leu Asn Gly
 610 615 620

Arg Leu Arg Ser Val Ile Gln Arg Gly Ser Gly Lys Lys Glu Leu Val
 625 630 635 640

Gly Glu Tyr Gly Arg Gly Asp Leu Ile Gly Val Val Glu Ala Leu Thr
 645 650 655

Arg Gln Pro Arg Ala Thr Thr Val His Ala Val Arg Asp Thr Glu Leu
 660 665 670

Ala Lys Leu Pro Glu Gly Thr Leu Gly His Ile Lys Arg Arg Tyr Pro
 675 680 685

Gln Val Val Thr Arg Leu Ile His Leu Leu Ser Gln Lys Ile Leu Gly
 690 695 700

Asn Leu Gln Gln Leu Gln Gly Pro Phe Pro Ala Gly Ser Gly Leu Gly
 705 710 715 720

Val Pro Pro His Ser Glu Leu Thr Asn Pro Ala Ser Asn Leu Ala Thr
 725 730 735

Val Ala Ile Leu Pro Val Cys Ala Glu Val Pro Met Val Ala Phe Thr
740 745 750

Leu Glu Leu Gln His Ala Leu Gln Ala Ile Gly Pro Thr Leu Leu Leu
755 760 765

Asn Ser Asp Ile Ile Arg Ala Arg Leu Gly Ala Ser Ala Leu Asp Ser
770 775 780

Ile Gln Glu Phe Arg Leu Ser Gly Trp Leu Ala Gln Gln Glu Asp Ala
785 790 795 800

His Arg Ile Val Leu Tyr Gln Thr Asp Ala Ser Leu Thr Pro Trp Thr
805 810 815

Val Arg Cys Leu Arg Gln Ala Asp Cys Ile Leu Ile Val Gly Leu Gly
820 825 830

Asp Gln Glu Pro Thr Leu Gly Gln Leu Glu Gln Met Leu Glu Asn Thr
835 840 845

Ala Val Arg Ala Leu Lys Gln Leu Val Leu Leu His Arg Glu Glu Gly
850 855 860

Ala Gly Pro Thr Arg Thr Val Glu Trp Leu Asn Met Arg Ser Trp Cys
865 870 875 880

Ser Gly His Leu His Leu Arg Cys Pro Arg Arg Leu Phe Ser Arg Arg
885 890 895

Ser Pro Ala Lys Leu His Glu Leu Tyr Glu Lys Val Phe Ser Arg Arg
900 905 910

Ala Asp Arg His Ser Asp Phe Ser Arg Leu Ala Arg Val Leu Thr Gly
915 920 925

Asn Thr Ile Ala Leu Val Leu Gly Gly Gly Gly Ala Arg Gly Cys Ser
930 935 940

His Ile Gly Val Leu Lys Ala Leu Glu Glu Ala Gly Val Pro Val Asp
945 950 955 960

Leu Val Gly Gly Thr Ser Ile Gly Ser Phe Ile Gly Ala Leu Tyr Ala
965 970 975

Glu Glu Arg Ser Ala Ser Arg Thr Lys Gln Arg Ala Arg Glu Trp Ala
980 985 990

Lys Ser Met Thr Ser Val Leu Glu Pro Val Leu Asp Leu Thr Tyr Pro
995 1000 1005

Val Thr Ser Met Phe Thr Gly Ser Ala Phe Asn Arg Ser Ile His
1010 1015 1020

Arg Val Phe Gln Asp Lys Gln Ile Glu Asp Leu Trp Leu Pro Tyr
1025 1030 1035

Phe Asn Val Thr Thr Asp Ile Thr Ala Ser Ala Met Arg Val His
1040 1045 1050

Lys Asp Gly Ser Leu Trp Arg Tyr Val Arg Ala Ser Met Thr Leu
1055 1060 1065

Ser Gly Tyr Leu Pro Pro Leu Cys Asp Pro Lys Asp Gly His Leu
1070 1075 1080

Leu Met Asp Gly Gly Tyr Ile Asn Asn Leu Pro Gly Asn Met Gly
1085 1090 1095

Ala Lys Thr Val Ile Ala Ile Asp Val Gly Ser Gln Asp Glu Thr
1100 1105 1110

Asp Leu Ser Thr Tyr Gly Asp Ser Leu Ser Gly Trp Trp Leu Leu
1115 1120 1125

Trp Lys Arg Leu Asn Pro Trp Ala Asp Lys Val Lys Val Pro Asp
1130 1135 1140

Met Ala Glu Ile Gln Ser Arg Leu Ala Tyr Val Ser Cys Val Arg
1145 1150 1155

Gln Leu Glu Val Val Lys Ser Ser Ser Tyr Cys Glu Tyr Leu Arg
1160 1165 1170

Pro Pro Ile Asp Cys Phe Lys Thr Met Asp Phe Gly Lys Phe Asp
1175 1180 1185

Gln Ile Tyr Asp Val Gly Tyr Gln Tyr Gly Lys Ala Val Phe Gly
1190 1195 1200

Gly Trp Ser Arg Gly Asn Val Ile Glu Lys Met Leu Thr Asp Arg
1205 1210 1215

Arg Ser Thr Asp Leu Asn Glu Ser Arg Arg Ala Asp Val Leu Ala
1220 1225 1230

Phe Pro Ser Ser Gly Phe Thr Asp Leu Ala Glu Ile Val Ser Arg
1235 1240 1245

Ile Glu Pro Pro Thr Ser Tyr Val Ser Asp Gly Cys Ala Asp Gly
1250 1255 1260

Glu Glu Ser Asp Cys Leu Thr Glu Tyr Glu Glu Asp Ala Gly Pro
1265 1270 1275

Asp Cys Ser Arg Asp Glu Gly Gly Ser Pro Glu Gly Ala Ser Pro
1280 1285 1290

Ser Thr Ala Ser Glu Met Glu Glu Glu Lys Ser Ile Leu Arg Gln
1295 1300 1305

Arg Arg Cys Leu Pro Gln Glu Pro Pro Gly Ser Ala Thr Asp Ala
1310 1315 1320

<210> 290
<211> 492
<212> PRT
<213> homo sapiens

<400> 290

Met Val Lys Phe Pro Ala Leu Thr His Tyr Trp Pro Leu Ile Arg Phe
1 5 10 15

Leu Val Pro Leu Gly Ile Thr Asn Ile Ala Ile Asp Phe Gly Glu Gln
20 25 30

Ala Leu Asn Arg Gly Ile Ala Ala Val Lys Glu Asp Ala Val Glu Met
35 40 45

Leu Ala Ser Tyr Gly Leu Ala Tyr Ser Leu Met Lys Phe Phe Thr Gly
50 55 60

Pro Met Ser Asp Phe Lys Asn Val Gly Leu Val Phe Val Asn Ser Lys
65 70 75 80

Arg Asp Arg Thr Lys Ala Val Leu Cys Met Val Val Ala Gly Ala Ile
85 90 95

Ala Ala Val Phe His Thr Leu Ile Ala Tyr Ser Asp Leu Gly Tyr Tyr
100 105 110

Ile Ile Asn Lys Leu His His Val Asp Glu Ser Val Gly Ser Lys Thr
115 120 125

Arg Arg Ala Phe Leu Tyr Leu Ala Ala Phe Pro Phe Met Asp Ala Met
130 135 140

Ala Trp Thr His Ala Gly Ile Leu Leu Lys His Lys Tyr Ser Phe Leu
145 150 155 160

Val Gly Cys Ala Ser Ile Ser Asp Val Ile Ala Gln Val Val Phe Val
165 170 175

Ala Ile Leu Leu His Ser His Leu Glu Cys Arg Glu Pro Leu Leu Ile
180 185 190

Pro Ile Leu Ser Leu Tyr Met Gly Ala Leu Val Arg Cys Thr Thr Leu
195 200 205

Cys Leu Gly Tyr Tyr Lys Asn Ile His Asp Ile Ile Pro Asp Arg Ser
210 215 220

Gly Pro Glu Leu Gly Gly Asp Ala Thr Ile Arg Lys Met Leu Ser Phe
225 230 235 240

Trp Trp Pro Leu Ala Leu Ile Leu Ala Thr Gln Arg Ile Ser Arg Pro
245 250 255

Ile Val Asn Leu Phe Val Ser Arg Asp Leu Gly Gly Ser Ser Ala Ala
260 265 270

Thr Glu Ala Val Ala Ile Leu Thr Ala Thr Tyr Pro Val Gly His Met
275 280 285

Pro Tyr Gly Trp Leu Thr Glu Ile Arg Ala Val Tyr Pro Ala Phe Asp
290 295 300

Lys Asn Asn Pro Ser Asn Lys Leu Val Ser Thr Ser Asn Thr Val Thr
305 310 315 320

Ala Ala His Ile Lys Lys Phe Thr Phe Val Cys Met Ala Leu Ser Leu
325 330 335

Thr Leu Cys Phe Val Met Phe Trp Thr Pro Asn Val Ser Glu Lys Ile
340 345 350

Leu Ile Asp Ile Ile Gly Val Asp Phe Ala Phe Ala Glu Leu Cys Val
355 360 365

Val Pro Leu Arg Ile Phe Ser Phe Phe Pro Val Pro Val Thr Val Arg
370 375 380

Ala His Leu Thr Gly Trp Leu Met Thr Leu Lys Lys Thr Phe Val Leu
385 390 395 400

Ala Pro Ser Ser Val Leu Arg Ile Ile Val Leu Ile Ala Ser Leu Val
405 410 415

Val Leu Pro Tyr Leu Gly Val His Gly Ala Thr Leu Gly Val Gly Ser
420 425 430

Leu Leu Ala Gly Phe Val Gly Glu Ser Thr Met Val Ala Ile Ala Ala
435 440 445

Cys Tyr Val Tyr Arg Lys Gln Lys Lys Lys Met Glu Asn Glu Ser Ala
450 455 460

Thr Glu Gly Glu Asp Ser Ala Met Thr Asp Met Pro Pro Thr Glu Glu
465 470 475 480

Val Thr Asp Ile Val Glu Met Arg Glu Glu Asn Glu
485 490

<210> 291
<211> 733
<212> PRT
<213> homo sapiens

<400> 291

Met Gly Trp Met Gly Glu Lys Thr Gly Lys Ile Leu Thr Glu Phe Leu
1 5 10 15

Gln Phe Tyr Glu Asp Gln Tyr Gly Val Ala Leu Phe Asn Ser Met Arg
20 25 30

His Glu Ile Glu Gly Thr Gly Leu Pro Gln Ala Gln Leu Leu Trp Arg
35 40 45

Lys Val Pro Leu Asp Glu Arg Ile Val Phe Ser Gly Asn Leu Phe Gln
50 55 60

His Gln Glu Asp Ser Lys Lys Trp Arg Asn Arg Phe Ser Leu Val Pro
65 70 75 80

His Asn Tyr Gly Leu Val Leu Tyr Glu Asn Lys Ala Ala Tyr Glu Arg
85 90 95

Gln Val Pro Pro Arg Ala Val Ile Asn Ser Ala Gly Tyr Lys Ile Leu
100 105 110

Thr Ser Val Asp Gln Tyr Leu Glu Leu Ile Gly Asn Ser Leu Pro Gly
115 120 125

Thr Thr Ala Lys Ser Gly Ser Ala Pro Ile Leu Lys Cys Pro Thr Gln
130 135 140

Phe Pro Leu Ile Leu Trp His Pro Tyr Ala Arg His Tyr Tyr Phe Cys
145 150 155 160

Met Met Thr Glu Ala Glu Gln Asp Lys Trp Gln Ala Val Leu Gln Asp
165 170 175

Cys Ile Arg His Cys Asn Asn Gly Ile Pro Glu Asp Ser Lys Val Glu
180 185 190

Gly Pro Ala Phe Thr Asp Ala Ile Arg Met Tyr Arg Gln Ser Lys Glu
195 200 205

Leu Tyr Gly Thr Trp Glu Met Leu Cys Gly Asn Glu Val Gln Ile Leu
210 215 220

Ser Asn Leu Val Met Glu Glu Leu Gly Pro Glu Leu Lys Ala Glu Leu
225 230 235 240

Gly Pro Arg Leu Lys Gly Lys Pro Gln Glu Arg Gln Arg Gln Trp Ile
245 250 255

Gln Ile Ser Asp Ala Val Tyr His Met Val Tyr Glu Gln Ala Lys Ala
260 265 270

Arg Phe Glu Glu Val Leu Ser Lys Val Gln Gln Val Gln Pro Ala Met
275 280 285

Gln Ala Val Ile Arg Thr Asp Met Asp Gln Ile Ile Thr Ser Lys Glu
290 295 300

His Leu Ala Ser Lys Ile Arg Ala Phe Ile Leu Pro Lys Ala Glu Val
305 310 315 320

Cys Val Arg Asn His Val Gln Pro Tyr Ile Pro Ser Ile Leu Glu Ala
325 330 335

Leu Met Val Pro Thr Ser Gln Gly Phe Thr Glu Val Arg Asp Val Phe
340 345 350

Phe Lys Glu Val Thr Asp Met Asn Leu Asn Val Ile Asn Glu Gly Gly
355 360 365

Ile Asp Lys Leu Gly Glu Tyr Met Glu Lys Leu Ser Arg Leu Ala Tyr
370 375 380

His Pro Leu Lys Met Gln Ser Cys Tyr Glu Lys Met Glu Ser Leu Arg
385 390 395 400

Leu Asp Gly Leu Gln Gln Arg Phe Asp Val Ser Ser Thr Ser Val Phe
405 410 415

Lys Gln Arg Ala Gln Ile His Met Arg Glu Gln Met Asp Asn Ala Val
420 425 430

Tyr Thr Phe Glu Thr Leu Leu His Gln Glu Leu Gly Lys Gly Pro Thr
435 440 445

Lys Glu Glu Leu Cys Lys Ser Ile Gln Arg Val Leu Glu Arg Val Leu
450 455 460

Lys Lys Tyr Asp Tyr Asp Ser Ser Ser Val Arg Lys Arg Phe Phe Arg
465 470 475 480

Glu Ala Leu Leu Gln Ile Ser Ile Pro Phe Leu Leu Lys Lys Leu Ala
485 490 495

Pro Thr Cys Lys Ser Glu Leu Pro Arg Phe Gln Glu Leu Ile Phe Glu
500 505 510

Asp Phe Ala Arg Phe Ile Leu Val Glu Asn Thr Tyr Glu Glu Val Val
515 520 525

Leu Gln Thr Val Met Lys Asp Ile Leu Gln Ala Val Lys Glu Ala Ala
530 535 540

Val Gln Arg Lys His Asn Leu Tyr Arg Asp Ser Met Val Met His Asn
545 550 555 560

Ser Asp Pro Asn Leu His Leu Leu Ala Glu Gly Ala Pro Ile Asp Trp
565 570 575

Gly Glu Glu Tyr Ser Asn Ser Gly Gly Gly Gly Ser Pro Ser Pro Ser
580 585 590

Thr Pro Glu Ser Ala Thr Leu Ser Glu Lys Arg Arg Arg Ala Lys Gln
595 600 605

Val Val Ser Val Val Gln Asp Glu Glu Val Gly Leu Pro Phe Glu Ala
610 615 620

Ser Pro Glu Ser Pro Pro Pro Ala Ser Pro Asp Gly Val Thr Glu Ile
625 630 635 640

Arg Gly Leu Leu Ala Gln Gly Leu Arg Pro Glu Ser Pro Pro Pro Ala
645 650 655

Gly Pro Leu Leu Asn Gly Ala Pro Ala Gly Glu Ser Pro Gln Pro Lys
660 665 670

Ala Ala Pro Glu Ala Ser Ser Pro Pro Ala Ser Pro Leu Gln His Leu
675 680 685

Leu Pro Gly Lys Ala Val Asp Leu Gly Pro Pro Lys Pro Ser Asp Gln
690 695 700

Glu Thr Gly Glu Gln Val Ser Ser Pro Ser Ser His Pro Ala Leu His
705 710 715 720

Thr Thr Thr Glu Asp Ser Ala Gly Val Gln Thr Glu Phe
725 730

<210> 292
<211> 498
<212> PRT
<213> homo sapiens

<400> 292

Met Ala Asp Glu Ser Glu Thr Ala Val Lys Pro Pro Ala Pro Pro Leu
1 5 10 15

Pro Gln Met Met Glu Gly Asn Gly Asn Gly His Glu His Cys Ser Asp
20 25 30

Cys Glu Asn Glu Glu Asp Asn Ser Tyr Asn Arg Gly Gly Leu Ser Pro
35 40 45

Ala Asn Asp Thr Gly Ala Lys Lys Lys Lys Lys Lys Gln Lys Lys Lys
50 55 60

Lys Glu Lys Gly Ser Glu Thr Asp Ser Ala Gln Asp Gln Pro Val Lys
65 70 75 80

Met Asn Ser Leu Pro Ala Glu Arg Ile Gln Glu Ile Gln Lys Ala Ile
85 90 95

Glu Leu Phe Ser Val Gly Gln Gly Pro Ala Lys Thr Met Glu Glu Ala
100 105 110

Ser Lys Arg Ser Tyr Gln Phe Trp Asp Thr Gln Pro Val Pro Lys Leu
115 120 125

Gly Glu Val Val Asn Thr His Gly Pro Val Glu Pro Asp Lys Asp Asn
130 135 140

Ile Arg Gln Glu Pro Tyr Thr Leu Pro Gln Gly Phe Thr Trp Asp Ala
145 150 155 160

Leu Asp Leu Gly Asp Arg Gly Val Leu Lys Glu Leu Tyr Thr Leu Leu
165 170 175

Asn Glu Asn Tyr Val Glu Asp Asp Asp Asn Met Phe Arg Phe Asp Tyr
180 185 190

Ser Pro Glu Phe Leu Leu Trp Ala Leu Arg Pro Pro Gly Trp Leu Pro
195 200 205

Gln Trp His Cys Gly Val Arg Val Val Ser Ser Arg Lys Leu Val Gly
210 215 220

Phe Ile Ser Ala Ile Pro Ala Asn Ile His Ile Tyr Asp Thr Glu Lys
225 230 235 240

Lys Met Val Glu Ile Asn Phe Leu Cys Val His Lys Lys Leu Arg Ser
245 250 255

Lys Arg Val Ala Pro Val Leu Ile Arg Glu Ile Thr Arg Arg Val His
260 265 270

Leu Glu Gly Ile Phe Gln Ala Val Tyr Thr Ala Gly Val Val Leu Pro
275 280 285

Lys Pro Val Gly Thr Cys Arg Tyr Trp His Arg Ser Leu Asn Pro Arg
290 295 300

Lys Leu Ile Glu Val Lys Phe Ser His Leu Ser Arg Asn Met Thr Met
305 310 315 320

Gln Arg Thr Met Lys Leu Tyr Arg Leu Pro Glu Ala Ser Ala Ala Pro
325 330 335

Gly Ala Gly Leu Arg Pro Met Glu Thr Lys Asp Ile Pro Val Val His
340 345 350

Gln Leu Leu Thr Arg Tyr Leu Lys Gln Phe His Leu Thr Pro Val Met
355 360 365

Ser Gln Glu Glu Val Glu His Trp Phe Tyr Pro Gln Glu Asn Ile Ile
370 375 380

Asp Thr Phe Val Val Glu Asn Ala Asn Gly Glu Val Thr Asp Phe Leu
385 390 395 400

Ser Phe Tyr Thr Leu Pro Ser Thr Ile Met Asn His Pro Thr His Lys
405 410 415

Ser Leu Lys Ala Ala Tyr Ser Phe Tyr Asn Val His Thr Gln Thr Pro
420 425 430

Leu Leu Asp Leu Met Ser Asp Ala Leu Val Leu Ala Lys Met Lys Gly
435 440 445

Phe Asp Val Phe Asn Ala Leu Asp Leu Met Glu Asn Lys Thr Phe Leu
450 455 460

Glu Lys Leu Lys Phe Gly Ile Gly Asp Gly Asn Leu Gln Tyr Tyr Leu
465 470 475 480

Tyr Asn Trp Lys Cys Pro Ser Met Gly Ala Glu Lys Val Gly Leu Val
485 490 495

Leu Gln

<210> 293
<211> 204
<212> PRT
<213> homo sapiens

<400> 293

Met Ala Glu Gln Glu Pro Thr Ala Glu Gln Leu Ala Gln Ile Ala Ala
1 5 10 15

Glu Asn Glu Glu Asp Glu His Ser Val Asn Tyr Lys Pro Pro Ala Gln
20 25 30

Lys Ser Ile Gln Glu Ile Gln Glu Leu Asp Lys Asp Asp Glu Ser Leu

35	40	45															
Arg	Lys	Tyr	Lys	Glu	Ala	Leu	Leu	Gly	Arg	Val	Ala	Val	Ser	Ala	Asp		
50						55					60						
Pro	Asn	Val	Pro	Asn	Val	Val	Val	Thr	Gly	Leu	Thr	Leu	Val	Cys	Ser		
65				70						75					80		
Ser	Ala	Pro	Gly	Pro	Leu	Glu	Leu	Asp	Leu	Thr	Gly	Asp	Leu	Glu	Ser		
				85					90					95			
Phe	Lys	Lys	Gln	Ser	Phe	Val	Leu	Lys	Glu	Gly	Val	Glu	Tyr	Arg	Ile		
			100					105					110				
Lys	Ile	Ser	Phe	Arg	Val	Asn	Arg	Glu	Ile	Val	Ser	Gly	Met	Lys	Tyr		
	115						120					125					
Ile	Gln	His	Thr	Tyr	Arg	Lys	Gly	Val	Lys	Ile	Asp	Lys	Thr	Asp	Tyr		
	130					135					140						
Met	Val	Gly	Ser	Tyr	Gly	Pro	Arg	Ala	Glu	Glu	Tyr	Glu	Phe	Leu	Thr		
145					150					155					160		
Pro	Val	Glu	Glu	Ala	Pro	Lys	Gly	Met	Leu	Ala	Arg	Gly	Ser	Tyr	Ser		
				165					170					175			
Ile	Lys	Ser	Arg	Phe	Thr	Asp	Asp	Asp	Lys	Thr	Asp	His	Leu	Ser	Trp		
			180					185					190				
Glu	Trp	Asn	Leu	Thr	Ile	Lys	Lys	Asp	Trp	Lys	Asp						
	195						200										
<210>	294																
<211>	171																
<212>	PRT																
<213>	homo sapiens																
<400>	294																
Met	Ser	His	Gly	Ala	Gly	Leu	Val	Arg	Thr	Thr	Cys	Ser	Ser	Gly	Ser		
1				5					10					15			
Ala	Leu	Gly	Pro	Gly	Ala	Gly	Ala	Ala	Gln	Pro	Ser	Ala	Ser	Pro	Leu		
			20					25					30				

Glu Gly Leu Leu Asp Leu Ser Tyr Pro Arg Thr His Ala Ala Leu Leu
35 40 45

Lys Val Ala Gln Met Val Thr Leu Leu Ile Ala Phe Ile Cys Val Arg
50 55 60

Ser Ser Leu Trp Thr Asn Tyr Ser Ala Tyr Ser Tyr Phe Glu Val Val
65 70 75 80

Thr Ile Cys Asp Leu Ile Met Ile Leu Ala Phe Tyr Leu Val His Leu
85 90 95

Phe Arg Phe Tyr Arg Val Leu Thr Cys Ile Ser Trp Pro Leu Ser Glu
100 105 110

Leu Leu His Tyr Leu Ile Gly Thr Leu Leu Leu Leu Ile Ala Ser Ile
115 120 125

Val Ala Ala Ser Lys Ser Tyr Asn Gln Ser Gly Leu Val Ala Gly Ala
130 135 140

Ile Phe Gly Phe Met Ala Thr Phe Leu Cys Met Ala Ser Ile Trp Leu
145 150 155 160

Ser Tyr Lys Ile Ser Cys Val Thr Gln Ser Thr
165 170

<210> 295
<211> 498
<212> PRT
<213> homo sapiens

<400> 295

Met Ala Leu Glu Thr Pro Thr Pro Gly Pro Pro Arg Glu Gly Gln Ser
1 5 10 15

Pro Ala Ser Gln Ala Gly Thr Gln His Pro Pro Ala Gln Ala Thr Ala
20 25 30

His Ser Gln Ser Ser Pro Glu Phe Lys Gly Ser Leu Ala Ser Leu Ser
35 40 45

Asp Ser Leu Gly Val Ser Val Met Ala Thr Asp Gln Asp Ser Tyr Ser

50

55

60

Thr Ser Ser Thr Glu Glu Glu Leu Glu Gln Phe Ser Ser Pro Ser Val
65 70 75 80

Lys Lys Lys Pro Ser Met Ile Leu Gly Lys Ala Arg His Arg Leu Ser
85 90 95

Phe Ala Ser Phe Ser Ser Met Phe His Ala Phe Leu Ser Asn Asn Arg
100 105 110

Lys Leu Tyr Lys Lys Val Val Glu Leu Ala Gln Asp Lys Gly Ser Tyr
115 120 125

Phe Gly Ser Leu Val Gln Asp Tyr Lys Val Tyr Ser Leu Glu Met Met
130 135 140

Ala Arg Gln Thr Ser Ser Thr Glu Met Leu Gln Glu Ile Arg Thr Met
145 150 155 160

Met Thr Gln Leu Lys Ser Tyr Leu Leu Gln Ser Thr Glu Leu Lys Ala
165 170 175

Leu Val Asp Pro Ala Leu His Ser Glu Glu Glu Leu Glu Ala Ile Val
180 185 190

Glu Ser Ala Leu Tyr Lys Cys Val Leu Lys Pro Leu Lys Glu Ala Ile
195 200 205

Asn Ser Cys Leu His Gln Ile His Ser Lys Asp Gly Ser Leu Gln Gln
210 215 220

Leu Lys Glu Asn Gln Leu Val Ile Leu Ala Thr Thr Thr Thr Asp Leu
225 230 235 240

Gly Val Thr Thr Ser Val Pro Glu Val Pro Met Met Glu Lys Ile Leu
245 250 255

Gln Lys Phe Thr Ser Met His Lys Ala Tyr Ser Pro Glu Lys Lys Ile
260 265 270

Ser Ile Leu Leu Lys Thr Cys Lys Leu Ile Tyr Asp Ser Met Ala Leu
275 280 285

Gly Asn Pro Gly Lys Pro Tyr Gly Ala Asp Asp Phe Leu Pro Val Leu
290 295 300

Met Tyr Val Leu Ala Arg Ser Asn Leu Thr Glu Met Leu Leu Asn Val
305 310 315 320

Glu Tyr Met Met Glu Leu Met Asp Pro Ala Leu Gln Leu Gly Glu Gly
325 330 335

Ser Tyr Tyr Leu Thr Thr Thr Tyr Gly Ala Leu Glu His Ile Lys Ser
340 345 350

Tyr Asp Lys Ile Thr Val Thr Arg Gln Leu Ser Val Glu Val Gln Asp
355 360 365

Ser Ile His Arg Trp Glu Arg Arg Arg Thr Leu Asn Lys Ala Arg Ala
370 375 380

Ser Arg Ser Ser Val Gln Asp Phe Ile Cys Val Ser Tyr Leu Glu Pro
385 390 395 400

Glu Gln Gln Ala Arg Thr Leu Ala Ser Arg Ala Asp Thr Gln Ala Gln
405 410 415

Ala Leu Cys Ala Gln Cys Ala Glu Lys Phe Ala Val Glu Arg Pro Gln
420 425 430

Ala His Arg Leu Phe Val Leu Val Asp Gly Arg Cys Phe Gln Leu Ala
435 440 445

Asp Asp Ala Leu Pro His Cys Ile Lys Gly Tyr Leu Leu Arg Ser Glu
450 455 460

Pro Lys Arg Asp Phe His Phe Val Tyr Arg Pro Leu Asp Gly Gly Gly
465 470 475 480

Gly Gly Gly Gly Gly Ser Pro Pro Cys Leu Val Val Arg Glu Pro Asn
485 490 495

Phe Leu

<210> 296
<211> 712
<212> PRT
<213> homo sapiens

<400> 296

Met Ala Gly Gly Pro Gly Pro Gly Glu Pro Ala Ala Pro Gly Ala Gln
1 5 10 15

His Phe Leu Tyr Glu Val Pro Pro Trp Val Met Cys Arg Phe Tyr Lys
20 25 30

Val Met Asp Ala Leu Glu Pro Ala Asp Trp Cys Gln Phe Ala Ala Leu
35 40 45

Ile Val Arg Asp Gln Thr Glu Leu Arg Leu Cys Glu Arg Ser Gly Gln
50 55 60

Arg Thr Ala Ser Val Leu Trp Pro Trp Ile Asn Arg Asn Ala Arg Val
65 70 75 80

Ala Asp Leu Val His Ile Leu Thr His Leu Gln Leu Leu Arg Ala Arg
85 90 95

Asp Ile Ile Thr Ala Trp His Pro Pro Ala Pro Leu Pro Ser Pro Gly
100 105 110

Thr Thr Ala Pro Arg Pro Ser Ser Ile Pro Ala Pro Ala Glu Ala Glu
115 120 125

Ala Trp Ser Pro Arg Lys Leu Pro Ser Ser Ala Ser Thr Phe Leu Ser
130 135 140

Pro Ala Phe Pro Gly Ser Gln Thr His Ser Gly Pro Glu Leu Gly Leu
145 150 155 160

Val Pro Ser Pro Ala Ser Leu Trp Pro Pro Pro Pro Ser Pro Ala Pro
165 170 175

Ser Ser Thr Lys Pro Gly Pro Glu Ser Ser Val Ser Leu Leu Gln Gly
180 185 190

Ala Arg Pro Phe Pro Phe Cys Trp Pro Leu Cys Glu Ile Ser Arg Gly

195					200					205					
Thr	His	Asn	Phe	Ser	Glu	Glu	Leu	Lys	Ile	Gly	Glu	Gly	Gly	Phe	Gly
210						215					220				
Cys	Val	Tyr	Arg	Ala	Val	Met	Arg	Asn	Thr	Val	Tyr	Ala	Val	Lys	Arg
225					230					235					240
Leu	Lys	Glu	Asn	Ala	Asp	Leu	Glu	Trp	Thr	Ala	Val	Lys	Gln	Ser	Phe
				245					250					255	
Leu	Thr	Glu	Val	Glu	Gln	Leu	Ser	Arg	Phe	Arg	His	Pro	Asn	Ile	Val
			260					265					270		
Asp	Phe	Ala	Gly	Tyr	Cys	Ala	Gln	Asn	Gly	Phe	Tyr	Cys	Leu	Val	Tyr
		275					280					285			
Gly	Phe	Leu	Pro	Asn	Gly	Ser	Leu	Glu	Asp	Arg	Leu	His	Cys	Gln	Thr
	290					295					300				
Gln	Ala	Cys	Pro	Pro	Leu	Ser	Trp	Pro	Gln	Arg	Leu	Asp	Ile	Leu	Leu
305					310					315					320
Gly	Thr	Ala	Arg	Ala	Ile	Gln	Phe	Leu	His	Gln	Asp	Ser	Pro	Ser	Leu
				325					330					335	
Ile	His	Gly	Asp	Ile	Lys	Ser	Ser	Asn	Val	Leu	Leu	Asp	Glu	Arg	Leu
			340					345					350		
Thr	Pro	Lys	Leu	Gly	Asp	Phe	Gly	Leu	Ala	Arg	Phe	Ser	Arg	Phe	Ala
		355					360					365			
Gly	Ser	Ser	Pro	Ser	Gln	Ser	Ser	Met	Val	Ala	Arg	Thr	Gln	Thr	Val
	370					375					380				
Arg	Gly	Thr	Leu	Ala	Tyr	Leu	Pro	Glu	Glu	Tyr	Ile	Lys	Thr	Gly	Arg
385					390					395					400
Leu	Ala	Val	Asp	Thr	Asp	Thr	Phe	Ser	Phe	Gly	Val	Val	Val	Leu	Glu
				405					410					415	
Thr	Leu	Ala	Gly	Gln	Arg	Ala	Val	Lys	Thr	His	Gly	Ala	Arg	Thr	Lys
			420					425					430		

Tyr Leu Lys Asp Leu Val Glu Glu Glu Ala Glu Glu Ala Gly Val Ala
435 440 445

Leu Arg Ser Thr Gln Ser Thr Leu Gln Ala Gly Leu Ala Ala Asp Ala
450 455 460

Trp Ala Ala Pro Ile Ala Met Gln Ile Tyr Lys Lys His Leu Asp Pro
465 470 475 480

Arg Pro Gly Pro Cys Pro Pro Glu Leu Gly Leu Gly Leu Gly Gln Leu
485 490 495

Ala Cys Cys Cys Leu His Arg Arg Ala Lys Arg Arg Pro Pro Met Thr
500 505 510

Gln Val Tyr Glu Arg Leu Glu Lys Leu Gln Ala Val Val Ala Gly Val
515 520 525

Pro Gly His Ser Glu Ala Ala Ser Cys Ile Pro Pro Ser Pro Gln Glu
530 535 540

Asn Ser Tyr Val Ser Ser Thr Gly Arg Ala His Ser Gly Ala Ala Pro
545 550 555 560

Trp Gln Pro Leu Ala Ala Pro Ser Gly Ala Ser Ala Gln Ala Ala Glu
565 570 575

Gln Leu Gln Arg Gly Pro Asn Gln Pro Val Glu Ser Asp Glu Ser Leu
580 585 590

Gly Gly Leu Ser Ala Ala Leu Arg Ser Trp His Leu Thr Pro Ser Cys
595 600 605

Pro Leu Asp Pro Ala Pro Leu Arg Glu Ala Gly Cys Pro Gln Gly Asp
610 615 620

Thr Ala Gly Glu Ser Ser Trp Gly Ser Gly Pro Gly Ser Arg Pro Thr
625 630 635 640

Ala Val Glu Gly Leu Ala Leu Gly Ser Ser Ala Ser Ser Ser Ser Glu
645 650 655

Pro Pro Gln Ile Ile Ile Asn Pro Ala Arg Gln Lys Met Val Gln Lys
660 665 670

Leu Ala Leu Tyr Glu Asp Gly Ala Leu Asp Ser Leu Gln Leu Leu Ser
675 680 685

Ser Ser Ser Leu Pro Gly Leu Gly Leu Glu Gln Asp Arg Gln Gly Pro
690 695 700

Glu Glu Ser Asp Glu Phe Gln Ser
705 710

